

SEQUENCE LISTING

<110> C. Frank Bennett
Susan M. Freier

<120> ANTISENSE MODULATION OF NAC EXPRESSION

<130> RTS-0326

<160> 91

<210> 1

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 1

tccgtcatcg ctcctcaggg

20

<210> 2

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 2

atgcattctg cccccaagga

20

<210> 3

<211> 5444

<212> DNA

<213> Homo sapiens

<220>

<220>

- - <221> CDS

<222> (523) ... (4812)

<400> 3

```
gccccagggc ctggagaggt ctgaagaaac ctgggagcca gcagcccggg gctccactct      60
gggtttctgaa agcccatgcc ctgctctgcg gctcctccca cccacactct tctcagcctt      120
gcagctcaag ggttgatctc aggagtccag gacccaggag agggagaaga ctgaggaaca      180
cagaacagtg agcggttgccc acaccccatc tcccgtcacc acatctcccc tcaccctcac      240
cctccctgcc tggccctgga ccccatccca ggacctcctt atcagctgac ttcttccagt      300
gtcttgaggg cccctctggg ctctccctc ccctggcttt tcttaccact cccctcttat      360
cggcgtctat ctgtaggtgc cctgggattt ataaaactgg gttccgaatg ctgaataaga      420
gacggtaaga gccaaaggcaa aggacagcac tgttctctgc ctgcctgata ccctcaccac      480
ctgggaacat ccccagaca ccctcttaac tccgggacag ag atg gct ggc gga      534
                                   Met Ala Gly Gly
                                   1

gcc tgg ggc cgc ctg gcc tgt tac ttg gag ttc ctg aag aag gag gag      582
Ala Trp Gly Arg Leu Ala Cys Tyr Leu Glu Phe Leu Lys Lys Glu Glu
   5              10              15              20

ctg aag gag ttc cag ctt ctg ctc gcc aat aaa gcg cac tcc agg agc      630
Leu Lys Glu Phe Gln Leu Leu Leu Ala Asn Lys Ala His Ser Arg Ser
              25              30              35

tct tcg ggt gag aca ccc gct cag cca gag aag acg agt ggc atg gag      678
Ser Ser Gly Glu Thr Pro Ala Gln Pro Glu Lys Thr Ser Gly Met Glu
              40              45              50

gtg gcc tcg tac ctg gtg gct cag tat ggg gag cag cgg gcc tgg gac      726
Val Ala Ser Tyr Leu Val Ala Gln Tyr Gly Glu Gln Arg Ala Trp Asp
```

| 55 | 60 | 65 | |
|---|-----|-----|------|
| cta gcc ctc cat acc tgg gag cag atg ggg ctg agg tca ctg tgc gcc | | | 774 |
| Leu Ala Leu His Thr Trp Glu Gln Met Gly Leu Arg Ser Leu Cys Ala | | | |
| 70 | 75 | 80 | |
| caa gcc cag gaa ggg gca ggc cac tct ccc tca ttc ccc tac agc cca | | | 822 |
| Gln Ala Gln Glu Gly Ala Gly His Ser Pro Ser Phe Pro Tyr Ser Pro | | | |
| 85 | 90 | 95 | 100 |
| agt gaa ccc cac ctg ggg tct ccc agc caa ccc acc tcc acc gca gtg | | | 870 |
| Ser Glu Pro His Leu Gly Ser Pro Ser Gln Pro Thr Ser Thr Ala Val | | | |
| 105 | 110 | 115 | |
| cta atg ccc tgg atc cat gaa ttg ccg gcg ggg tgc acc cag ggc tca | | | 918 |
| Leu Met Pro Trp Ile His Glu Leu Pro Ala Gly Cys Thr Gln Gly Ser | | | |
| 120 | 125 | 130 | |
| gag aga agg gtt ttg aga cag ctg cct gac aca tct gga cgc cgc tgg | | | 966 |
| Glu Arg Arg Val Leu Arg Gln Leu Pro Asp Thr Ser Gly Arg Arg Trp | | | |
| 135 | 140 | 145 | |
| aga gaa atc tct gcc tca ctc ctc tac caa gct ctt cca agc tcc cca | | | 1014 |
| Arg Glu Ile Ser Ala Ser Leu Leu Tyr Gln Ala Leu Pro Ser Ser Pro | | | |
| 150 | 155 | 160 | |
| gac cat gag tct cca agc cag gag tca ccc aac gcc ccc aca tcc aca | | | 1062 |
| Asp His Glu Ser Pro Ser Gln Glu Ser Pro Asn Ala Pro Thr Ser Thr | | | |
| 165 | 170 | 175 | 180 |
| gca gtg ctg ggg agc tgg gga tcc cca cct cag ccc agc cta gca ccc | | | 1110 |
| Ala Val Leu Gly Ser Trp Gly Ser Pro Pro Gln Pro Ser Leu Ala Pro | | | |
| 185 | 190 | 195 | |
| aga gag cag gag gct cct ggg acc caa tgg cct ctg gat gaa acg tca | | | 1158 |
| Arg Glu Gln Glu Ala Pro Gly Thr Gln Trp Pro Leu Asp Glu Thr Ser | | | |
| 200 | 205 | 210 | |
| gga att tac tac aca gaa atc aga gaa aga gag aga gag aaa tca gag | | | 1206 |
| Gly Ile Tyr Tyr Thr Glu Ile Arg Glu Arg Glu Arg Glu Lys Ser Glu | | | |
| 215 | 220 | 225 | |
| aaa ggc agg ccc cca tgg gca gcg gtg gta gga acg ccc cca cag gcg | | | 1254 |
| Lys Gly Arg Pro Pro Trp Ala Ala Val Val Gly Thr Pro Pro Gln Ala | | | |

| 230 | 235 | 240 | |
|---|-----|-----|------|
| cac acc agc cta cag ccc cac cac cac cca tgg gag cct tct gtg aga | | | 1302 |
| His Thr Ser Leu Gln Pro His His His Pro Trp Glu Pro Ser Val Arg | | | |
| 245 | 250 | 255 | 260 |
| - gag agc ctc tgt tcc aca tgg ccc tgg aaa aat gag gat ttt aac caa | | | |
| Glu Ser Leu Cys Ser Thr Trp Pro Trp Lys Asn Glu Asp Phe Asn Gln | | | |
| | 265 | 270 | 275 |
| aaa ttc aca cag ctg cta ctt cta caa aga cct cac ccc aga agc caa | | | |
| Lys Phe Thr Gln Leu Leu Leu Leu Gln Arg Pro His Pro Arg Ser Gln | | | |
| | 280 | 285 | 290 |
| gat ccc ctg gtc aag aga agc tgg cct gat tat gtg gag gag aat cga | | | |
| Asp Pro Leu Val Lys Arg Ser Trp Pro Asp Tyr Val Glu Glu Asn Arg | | | |
| | 295 | 300 | 305 |
| gga cat tta att gag atc aga gac tta ttt ggc cca ggc ctg gat acc | | | |
| Gly His Leu Ile Glu Ile Arg Asp Leu Phe Gly Pro Gly Leu Asp Thr | | | |
| | 310 | 315 | 320 |
| caa gaa cct cgc ata gtc ata ctg cag ggg gct gct gga att ggg aag | | | |
| Gln Glu Pro Arg Ile Val Ile Leu Gln Gly Ala Ala Gly Ile Gly Lys | | | |
| | 325 | 330 | 335 |
| tca aca ctg gcc agg cag gtg aag gaa gcc tgg ggg aga ggc cag ctg | | | |
| Ser Thr Leu Ala Arg Gln Val Lys Glu Ala Trp Gly Arg Gly Gln Leu | | | |
| | 345 | 350 | 355 |
| tat ggg gac cgc ttc cag cat gtc ttc tac ttc agc tgc aga gag ctg | | | |
| Tyr Gly Asp Arg Phe Gln His Val Phe Tyr Phe Ser Cys Arg Glu Leu | | | |
| | 360 | 365 | 370 |
| gcc cag tcc aag gtg gtg agt ctc gct gag ctc atc gga aaa gat ggg | | | |
| Ala Gln Ser Lys Val Val Ser Leu Ala Glu Leu Ile Gly Lys Asp Gly | | | |
| | 375 | 380 | 385 |
| aca gcc act ccg gct ccc att aga cag atc ctg tct agg cca gag cgg | | | |
| Thr Ala Thr Pro Ala Pro Ile Arg Gln Ile Leu Ser Arg Pro Glu Arg | | | |
| | 390 | 395 | 400 |
| ctg ctc ttc atc ctc gat ggt gta gat gag cca gga tgg gtc ttg cag | | | |
| Leu Leu Phe Ile Leu Asp Gly Val Asp Glu Pro Gly Trp Val Leu Gln | | | |
| | | | 1782 |

| 405 | 410 | 415 | 420 | |
|-------------------|---------------------|-----------------|-----------------|------|
| gag ccg agt tct | gag ctc tgt ctg cac | tgg agc cag cca | cag ccg gcg | 1830 |
| Glu Pro Ser Ser | Glu Leu Cys Leu His | Trp Ser Gln Pro | Gln Pro Ala | |
| | 425 | 430 | 435 | |
| - gat gca ctg ctg | ggc agt ttg ctg | ggg aaa act ata | ctt ccc gag gca | 1878 |
| Asp Ala Leu Leu | Gly Ser Leu Leu | Gly Lys Thr Ile | Leu Pro Glu Ala | |
| | 440 | 445 | 450 | |
| tcc ttc ctg atc | acg gct cgg acc | aca gct ctg cag | aac ctc att cct | 1926 |
| Ser Phe Leu Ile | Thr Ala Arg Thr | Thr Ala Leu Gln | Asn Leu Ile Pro | |
| | 455 | 460 | 465 | |
| tct ttg gag cag | gca cgt tgg gta | gag gtc ctg ggg | ttc tct gag tcc | 1974 |
| Ser Leu Glu Gln | Ala Arg Trp Val | Glu Val Leu Gly | Phe Ser Glu Ser | |
| | 470 | 475 | 480 | |
| agc agg aag gaa | tat ttc tac aga | tat ttc aca gat | gaa agg caa gca | 2022 |
| Ser Arg Lys Glu | Tyr Phe Tyr Arg | Tyr Phe Thr Asp | Glu Arg Gln Ala | |
| 485 | 490 | 495 | 500 | |
| att aga gcc ttt | agg ttg gtc aaa | tca aac aaa gag | ctc tgg gcc ctg | 2070 |
| Ile Arg Ala Phe | Arg Leu Val Lys | Ser Asn Lys Glu | Leu Trp Ala Leu | |
| | 505 | 510 | 515 | |
| tgt ctt gtg ccc | tgg gtg tcc tgg | ctg gcc tgc act | tgc ctg atg cag | 2118 |
| Cys Leu Val Pro | Trp Val Ser Trp | Leu Ala Cys Thr | Cys Leu Met Gln | |
| | 520 | 525 | 530 | |
| cag atg aag cgg | aag gaa aaa ctc | aca ctg act tcc | aag acc acc aca | 2166 |
| Gln Met Lys Arg | Lys Glu Lys Leu | Thr Leu Thr Ser | Lys Thr Thr Thr | |
| | 535 | 540 | 545 | |
| acc ctc tgt cta | cat tac ctt gcc | cag gct ctc caa | gct cag cca ttg | 2214 |
| Thr Leu Cys Leu | His Tyr Leu Ala | Gln Ala Leu Gln | Ala Gln Pro Leu | |
| | 550 | 555 | 560 | |
| gga ccc cag ctc | aga gac ctc tgc | tct ctg gct gct | gag ggc atc tgg | 2262 |
| Gly Pro Gln Leu | Arg Asp Leu Cys | Ser Leu Ala Ala | Glu Gly Ile Trp | |
| 565 | 570 | 575 | 580 | |
| caa aaa aag acc | ctt ttc agt cca | gat gac ctc agg | aag cat ggg tta | 2310 |
| Gln Lys Lys Thr | Leu Phe Ser Pro | Asp Asp Leu Arg | Lys His Gly Leu | |

| 585 | 590 | 595 | |
|---|-----|-----|------|
| gat ggg gcc atc atc tcc acc ttc ttg aag atg ggt att ctt caa gag | | | 2358 |
| Asp Gly Ala Ile Ile Ser Thr Phe Leu Lys Met Gly Ile Leu Gln Glu | | | |
| 600 | 605 | 610 | |
| — cac ccc atc cct ctg agc tac agc ttc att cac ctc tgt ttc caa gag | | | 2406 |
| His Pro Ile Pro Leu Ser Tyr Ser Phe Ile His Leu Cys Phe Gln Glu | | | |
| 615 | 620 | 625 | |
| ttc ttt gca gca atg tcc tat gtc ttg gag gat gag aag ggg aga ggt | | | 2454 |
| Phe Phe Ala Ala Met Ser Tyr Val Leu Glu Asp Glu Lys Gly Arg Gly | | | |
| 630 | 635 | 640 | |
| aaa cat tct aat tgc atc ata gat ttg gaa aag acg cta gaa gca tat | | | 2502 |
| Lys His Ser Asn Cys Ile Ile Asp Leu Glu Lys Thr Leu Glu Ala Tyr | | | |
| 645 | 650 | 655 | 660 |
| gga ata cat ggc ctg ttt ggg gca tca acc aca cgt ttc cta ttg ggc | | | 2550 |
| Gly Ile His Gly Leu Phe Gly Ala Ser Thr Thr Arg Phe Leu Leu Gly | | | |
| 665 | 670 | 675 | |
| ctg tta agt gat gag ggg gag aga gag atg gag aac atc ttt cac tgc | | | 2598 |
| Leu Leu Ser Asp Glu Gly Glu Arg Glu Met Glu Asn Ile Phe His Cys | | | |
| 680 | 685 | 690 | |
| cgg ctg tct cag ggg agg aac ctg atg cag tgg gtc ccg tcc ctg cag | | | 2646 |
| Arg Leu Ser Gln Gly Arg Asn Leu Met Gln Trp Val Pro Ser Leu Gln | | | |
| 695 | 700 | 705 | |
| ctg ctg ctg cag cca cac tct ctg gag tcc ctc cac tgc ttg tac gag | | | 2694 |
| Leu Leu Leu Gln Pro His Ser Leu Glu Ser Leu His Cys Leu Tyr Glu | | | |
| 710 | 715 | 720 | |
| act cgg aac aaa acg ttc ctg aca caa gtg atg gcc cat ttc gaa gaa | | | 2742 |
| Thr Arg Asn Lys Thr Phe Leu Thr Gln Val Met Ala His Phe Glu Glu | | | |
| 725 | 730 | 735 | 740 |
| atg ggc atg tgt gta gaa aca gac atg gag ctc tta gtg tgc act ttc | | | 2790 |
| Met Gly Met Cys Val Glu Thr Asp Met Glu Leu Leu Val Cys Thr Phe | | | |
| 745 | 750 | 755 | |
| tgc att aaa ttc agc cgc cac gtg aag aag ctt cag ctg att gag ggc | | | 2838 |
| Cys Ile Lys Phe Ser Arg His Val Lys Lys Leu Gln Leu Ile Glu Gly | | | |

| 760 | 765 | 770 | |
|---|-----|-----|------|
| agg cag cac aga tca aca tgg agc ccc acc atg gta gtc ctg ttc agg | | | 2886 |
| Arg Gln His Arg Ser Thr Trp Ser Pro Thr Met Val Val Leu Phe Arg | | | |
| 775 | 780 | 785 | |
| --- tgg gtc cca gtc aca gat gcc tat tgg cag att ctc ttc tcc gtc ctc | | | 2934 |
| Trp Val Pro Val Thr Asp Ala Tyr Trp Gln Ile Leu Phe Ser Val Leu | | | |
| 790 | 795 | 800 | |
| aag gtc acc aga aac ctg aag gag ctg gac cta agt gga aac tcg ctg | | | 2982 |
| Lys Val Thr Arg Asn Leu Lys Glu Leu Asp Leu Ser Gly Asn Ser Leu | | | |
| 805 | 810 | 815 | 820 |
| agc cac tct gca gtg aag agt ctt tgt aag acc ctg aga cgc cct cgc | | | 3030 |
| Ser His Ser Ala Val Lys Ser Leu Cys Lys Thr Leu Arg Arg Pro Arg | | | |
| 825 | 830 | 835 | |
| tgc ctc ctg gag acc ctg cgg ttg gct ggc tgt ggc ctc aca gct gag | | | 3078 |
| Cys Leu Leu Glu Thr Leu Arg Leu Ala Gly Cys Gly Leu Thr Ala Glu | | | |
| 840 | 845 | 850 | |
| gac tgc aag gac ctt gcc ttt ggg ctg aga gcc aac cag acc ctg acc | | | 3126 |
| Asp Cys Lys Asp Leu Ala Phe Gly Leu Arg Ala Asn Gln Thr Leu Thr | | | |
| 855 | 860 | 865 | |
| gag ctg gac ctg agc ttc aat gtg ctc acg gat gct gga gcc aaa cac | | | 3174 |
| Glu Leu Asp Leu Ser Phe Asn Val Leu Thr Asp Ala Gly Ala Lys His | | | |
| 870 | 875 | 880 | |
| ctt tgc cag aga ctg aga cag ccg agc tgc aag cta cag cga ctg cag | | | 3222 |
| Leu Cys Gln Arg Leu Arg Gln Pro Ser Cys Lys Leu Gln Arg Leu Gln | | | |
| 885 | 890 | 895 | 900 |
| ctg gtc agc tgt ggc ctc acg tct gac tgc tgc cag gac ctg gcc tct | | | 3270 |
| Leu Val Ser Cys Gly Leu Thr Ser Asp Cys Cys Gln Asp Leu Ala Ser | | | |
| 905 | 910 | 915 | |
| gtg ctt agt gcc agc ccc agc ctg aag gag cta gac ctg cag cag aac | | | 3318 |
| Val Leu Ser Ala Ser Pro Ser Leu Lys Glu Leu Asp Leu Gln Gln Asn | | | |
| 920 | 925 | 930 | |
| aac ctg gat gac gtt ggc gtg cga ctg ctc tgt gag ggg ctc agg cat | | | 3366 |
| Asn Leu Asp Asp Val Gly Val Arg Leu Leu Cys Glu Gly Leu Arg His | | | |

| 935 | 940 | 945 | |
|---|------|------|------|
| cct gcc tgc aaa ctc ata cgc ctg ggg ctg gac cag aca act ctg agt | | | 3414 |
| Pro Ala Cys Lys Leu Ile Arg Leu Gly Leu Asp Gln Thr Thr Leu Ser | | | |
| 950 | 955 | 960 | |
| gat gag atg agg cag gaa ctg agg gcc ctg gag cag gag aaa cct cag | | | 3462 |
| Asp Glu Met Arg Gln Glu Leu Arg Ala Leu Glu Gln Glu Lys Pro Gln | | | |
| 965 | 970 | 975 | 980 |
| ctg ctc atc ttc agc aga cgg aaa cca agt gtg atg acc cct act gag | | | 3510 |
| Leu Leu Ile Phe Ser Arg Arg Lys Pro Ser Val Met Thr Pro Thr Glu | | | |
| 985 | 990 | 995 | |
| ggc ctg gat acg gga gag atg agt aat agc aca tcc tca ctc aag cgg | | | 3558 |
| Gly Leu Asp Thr Gly Glu Met Ser Asn Ser Thr Ser Ser Leu Lys Arg | | | |
| 1000 | 1005 | 1010 | |
| cag aga ctc gga tca gag agg gcg gct tcc cat gtt gct cag gct aat | | | 3606 |
| Gln Arg Leu Gly Ser Glu Arg Ala Ala Ser His Val Ala Gln Ala Asn | | | |
| 1015 | 1020 | 1025 | |
| ctc aaa ctc ctg gac gtg agc aag atc ttc cca att gct gag att gca | | | 3654 |
| Leu Lys Leu Leu Asp Val Ser Lys Ile Phe Pro Ile Ala Glu Ile Ala | | | |
| 1030 | 1035 | 1040 | |
| gag gaa agc tcc cca gag gta gta ccg gtg gaa ctc ttg tgc gtg cct | | | 3702 |
| Glu Glu Ser Ser Pro Glu Val Val Pro Val Glu Leu Leu Cys Val Pro | | | |
| 1045 | 1050 | 1055 | 1060 |
| tct cct gcc tct caa ggg gac ctg cat acg aag cct ttg ggg act gac | | | 3750 |
| Ser Pro Ala Ser Gln Gly Asp Leu His Thr Lys Pro Leu Gly Thr Asp | | | |
| 1065 | 1070 | 1075 | |
| gat gac ttc tgg ggc ccc acg ggg cct gtg gct act gag gta gtt gac | | | 3798 |
| Asp Asp Phe Trp Gly Pro Thr Gly Pro Val Ala Thr Glu Val Val Asp | | | |
| 1080 | 1085 | 1090 | |
| aaa gaa aag aac ttg tac cga gtt cac ttc cct gta gct ggc tcc tac | | | 3846 |
| Lys Glu Lys Asn Leu Tyr Arg Val His Phe Pro Val Ala Gly Ser Tyr | | | |
| 1095 | 1100 | 1105 | |
| cgc tgg ccc aac acg ggt ctc tgc ttt gtg atg aga gaa gcg gtg acc | | | 3894 |
| Arg Trp Pro Asn Thr Gly Leu Cys Phe Val Met Arg Glu Ala Val Thr | | | |

| 1110 | 1115 | 1120 | |
|---|------|------|------|
| gtt gag att gaa ttc tgt gtg tgg gac cag ttc ctg ggt gag atc aac | | | 3942 |
| Val Glu Ile Glu Phe Cys Val Trp Asp Gln Phe Leu Gly Glu Ile Asn | | | |
| 1125 | 1130 | 1135 | 1140 |
| — cca cag cac agc tgg atg gtg gca ggg cct ctg ctg gac atc aag gct | | | 3990 |
| Pro Gln His Ser Trp Met Val Ala Gly Pro Leu Leu Asp Ile Lys Ala | | | |
| | 1145 | 1150 | 1155 |
| gag cct gga gct gtg gaa gct gtg cac ctc cct cac ttt gtg gct ctc | | | 4038 |
| Glu Pro Gly Ala Val Glu Ala Val His Leu Pro His Phe Val Ala Leu | | | |
| | 1160 | 1165 | 1170 |
| caa ggg ggc cat gtg gac aca tcc ctg ttc caa atg gcc cac ttt aaa | | | 4086 |
| Gln Gly Gly His Val Asp Thr Ser Leu Phe Gln Met Ala His Phe Lys | | | |
| | 1175 | 1180 | 1185 |
| gag gag ggg atg ctc ctg gag aag cca gcc agg gtg gag ctg cat cac | | | 4134 |
| Glu Glu Gly Met Leu Leu Glu Lys Pro Ala Arg Val Glu Leu His His | | | |
| | 1190 | 1195 | 1200 |
| ata gtt ctg gaa aac ccc agc ttc tcc ccc ttg gga gtc ctc ctg aaa | | | 4182 |
| Ile Val Leu Glu Asn Pro Ser Phe Ser Pro Leu Gly Val Leu Leu Lys | | | |
| 1205 | 1210 | 1215 | 1220 |
| atg atc cat aat gcc ctg cgc ttc att ccc gtc acc tct gtg gtg ttg | | | 4230 |
| Met Ile His Asn Ala Leu Arg Phe Ile Pro Val Thr Ser Val Val Leu | | | |
| | 1225 | 1230 | 1235 |
| ctt tac cac cgc gtc cat cct gag gaa gtc acc ttc cac ctc tac ctg | | | 4278 |
| Leu Tyr His Arg Val His Pro Glu Glu Val Thr Phe His Leu Tyr Leu | | | |
| | 1240 | 1245 | 1250 |
| atc cca agt gac tgc tcc att cgg aag gaa ctg gag ctc tgc tat cga | | | 4326 |
| Ile Pro Ser Asp Cys Ser Ile Arg Lys Glu Leu Glu Leu Cys Tyr Arg | | | |
| | 1255 | 1260 | 1265 |
| agc cct gga gaa gac cag ctg ttc tcg gag ttc tac gtt ggc cac ttg | | | 4374 |
| Ser Pro Gly Glu Asp Gln Leu Phe Ser Glu Phe Tyr Val Gly His Leu | | | |
| | 1270 | 1275 | 1280 |
| gga tca ggg atc agg ctg caa gtg aaa gac aag aaa gat gag act ctg | | | 4422 |
| Gly Ser Gly Ile Arg Leu Gln Val Lys Asp Lys Lys Asp Glu Thr Leu | | | |

| 1285 | 1290 | 1295 | 1300 | |
|---|------|------|------|------|
| gtg tgg gag gcc ttg gtg aaa cca gga gat ctc atg cct gca act act | | | | 4470 |
| Val Trp Glu Ala Leu Val Lys Pro Gly Asp Leu Met Pro Ala Thr Thr | | | | |
| | 1305 | 1310 | 1315 | |
| — ctg atc cct cca gcc cgc ata gcc gta cct tca cct ctg gat gcc ccg | | | | 4518 |
| Leu Ile Pro Pro Ala Arg Ile Ala Val Pro Ser Pro Leu Asp Ala Pro | | | | |
| | 1320 | 1325 | 1330 | |
| cag ttg ctg cac ttt gtg gac cag tat cga gag cag ctg ata gcc cga | | | | 4566 |
| Gln Leu Leu His Phe Val Asp Gln Tyr Arg Glu Gln Leu Ile Ala Arg | | | | |
| | 1335 | 1340 | 1345 | |
| gtg aca tcg gtg gag gtt gtc ttg gac aaa ctg cat gga cag gtg ctg | | | | 4614 |
| Val Thr Ser Val Glu Val Val Leu Asp Lys Leu His Gly Gln Val Leu | | | | |
| | 1350 | 1355 | 1360 | |
| agc cag gag cag tac gag agg gtg ctg gct gag aac acg agg ccc agc | | | | 4662 |
| Ser Gln Glu Gln Tyr Glu Arg Val Leu Ala Glu Asn Thr Arg Pro Ser | | | | |
| 1365 | 1370 | 1375 | 1380 | |
| cag atg cgg aag ctg ttc agc ttg agc cag tcc tgg gac cgg aag tgc | | | | 4710 |
| Gln Met Arg Lys Leu Phe Ser Leu Ser Gln Ser Trp Asp Arg Lys Cys | | | | |
| | 1385 | 1390 | 1395 | |
| aaa gat gga ctc tac caa gcc ctg aag gag acc cat cct cac ctc att | | | | 4758 |
| Lys Asp Gly Leu Tyr Gln Ala Leu Lys Glu Thr His Pro His Leu Ile | | | | |
| | 1400 | 1405 | 1410 | |
| atg gaa ctc tgg gag aag ggc agc aaa aag gga ctc ctg cca ctc agc | | | | 4806 |
| Met Glu Leu Trp Glu Lys Gly Ser Lys Lys Gly Leu Leu Pro Leu Ser | | | | |
| | 1415 | 1420 | 1425 | |
| agc tga agtatcaaca ccagcccttg acccttgagt cctggccttg gctgaccctt | | | | 4862 |
| Ser | | | | |
| ctttgggtct cagtttcttt ctctgcaaac aagttgcat ctggtttgcc ttccagcact | | | | 4922 |
| aaagtaatgg aactttgatg atgcctttgc tgggcattat gtgtccatgc cagggatgcc | | | | 4982 |
| acaggggggcc ccagtccagg tggcctaaca gcattctcagg gaatgtccat ctggagctgg | | | | 5042 |

caagaccct gcagacctca tagagcctca tctggtggcc acagcagcca agcctagagc 5102
cctccggatc ccatccaggc gcaaagagga ataggaggga catggaacca tttgcctctg 5162
gctgtgtcac aggggtgagcc ccaaaattgg ggttcagcgt gggaggccac gtggattctt 5222
—ggctttgtac aggaagatct acaagagcaa gccaacagag taaagtggaa ggaagtttat 5282
tcagaaaata aaggagtatc acagctcttt tagaatttgt ctagcaggct ttccagtttt 5342
taccagaaaa cccctataaa ttaaaaattt ttacttaaa ttaagaatt aaaaaatac 5402
aaaaaagaaa aaatgaaaat aaaggaataa gaagttacct ac 5444

<210> 4

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer

<400> 4

gtggaggaga atcgaggaca ttt

23

<210> 5

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer

<400> 5

ccagtgttga cttcccaatt cc

22

<210> 6

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Probe

— —<400> 6

ctggataccc aagaacctcg catagtcata ctg

33

<210> 7

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer

<400> 7

gaagggtgaag gtcggagtc

19

<210> 8

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer

<400> 8

gaagatggtg atgggatttc

20

<210> 9

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Probe

<400> 9

caagcttccc gttctcagcc

20

<210> 10

<211> 96649

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(96649)

<223> n = A,T,C or G

<400> 10

gtgctgggat tacaggcatg aagcacattt ctgaacccaa atttttatat gtgtgatctc 60
ttcaacccag aaattccttt tctgggactc tgtcccttgg aggtactcac atgtgtgtga 120
taagatacac ttgtgtacga agttgggttat caccatgtgg ctggtaacag gaaaatgcaa 180
atgaaagcca gctagatttc catcaaattt gactaatcaa ataaattata gtagatccaa 240
actatgaaaa actcaacaat tacaaaaaga gaagaaagaa cgacttagat ccatatgtac 300
taacatggag ggatctgcaa aatattttta gagggaaaaa attcactcct aaaaaactta 360
gatcctatat atttggcaca tagaaaagta actgtgttca tgtaaaactg tgtttttttt 420
ttcgtggaac actgaaacat tcatgtaaca ttgggttattc ctgggaagta gatctgatgg 480
tgcagaaagt caaaagaaca tttttatttt tccccctaca tatttctgta ttatatTTTT 540
ataatcctaa taaatctaaa caacaagatg aaaatgtcat tttaaaagtt acatgtaatt 600
ggatagtagt attgcatcaa tgttttaagc ttccctgaatt ttatcattgt acagtggcat 660
ataagaaaac atcctgattc ttagtagata ctgccaaagt tcttagaagt aaatgttatg 720
ggccagttgt gatggctcat gcctgtaatg ccagcacttc gggatgccaa gggggggggg 780
ggtgcagatc acctgaggtc aggagttcga gaccagcctg gccaacatgg caaaaccca 840
tctctacaaa aatacaaaaa ttagccaggc atgggtggcag gcacctgtaa tcccagctac 900
tagagaggct gaggcaggag aaacgcttga acccaggagg cagaggttgt agtgagctga 960
caatcgtgcc actgcactcc agcctgggca acagagcaag cttccatctc aggggaaaaa 1020
aaaaaaaaag aagtaaattg tatcatatct gcaacttact cccaataatc agcaaacaca 1080
attaaaagat aaaacaatag taaatgttaa taattgggtga atgtaggtta aggttatatg 1140
ggagttcact gtacaactct tgacattttc ctgtaagttt gaaatgtttt caaagtaaaa 1200
agggtctctg aaaagttatg catgacttcc tccgttttagc atagagacct ggggtgtgcct 1260
tgcttggttt ctaagaggac ctatttggtg ggtgttttag gcctataaag caggaacaag 1320
tcattgttct ttactgagat ttaaatgcag ttaagatcaa atgagaatac tcagagtga 1380
agatgcgttc tgttgtaacc gatgtaaatt gactgtgacc tttggctatc gtgtgttctt 1440
ggaagatggt gatgcgggta tgtgtattct tgtccaagtt cacaggacat taaagcagac 1500
catggtaggg gcaacaccaa gtcctaatat ttccttcact tcacactgga ggaaagacta 1560
gaaggaggaa gaggagtaac agggagagga ggagggtgg atgaactaga ctatgttttt 1620
taacaaaaga tttcacctgt tgatgttcaa agcaccgttt tatctaagcc tgaaacacac 1680
caacttgggg gaaatgaatt gtcaaactat tgagatgatc ttgttgggtc cataaactg 1740

ttggatacag tgagttcctt ttcaaagggtt ccgcttggtc aattctctca ttctttgtcc 1800
tctattttca aagcctaact gttctgcctc cttgcccta gttacagtaa acaaccttcc 1860
agccgttccc aatctgtaac tcacatccat tcccagctg taaccacat ccattcaca 1920
tctgaaacaa cccacatctg taccttattt ggccaaaact gctcttcccg ctgctgtagc 1980
ccccaccctt gctccatttg aagtagccaa tcaggatcag cttagactgc gcagtccaac 2040
tccagccaat ggggcccgga cacagcatca gggactgact gggtcaggga taaaaacccc 2100
- - tccctcctt tggttcagtgt gctcttgcat tggccagaag ggcaagcgag acccttctcc 2160
agaagtaa at ttgccttgct gaaaaaatcc tttatttgag tgctcatttt ctctgtgact 2220
ccgagctttt atttccaaca ataccaagca cacacctgaa gggactagat atttccatgt 2280
cgatcatcct ggaaggagga taatcctggg gctgtgcta ggagtgatgt gaatgttaga 2340
cagcttggtt tctttctaag tattagagcc agaggggtcct ggctccaaa gggcagagga 2400
ggctgcagaa tcttgaggct gggcaatgac ctgcctgtgt gtaatggaaa gcaccagagc 2460
tacagagggc tccagctgga aaagggatag cagggatgat cctggaccag agagggctct 2520
gaggacagtg tgagccacag ctacagagag tgatgccctg atgtatttac tctcctcat 2580
ccctgaacct tggggaagt cttgctcaa atcatatcct catgtcacgg tctcagctgt 2640
gccgtaaat gggaaaatct tgtcccacat ttcaggaatg ggccagaaaa gagccgtgcc 2700
ctaaaatggg ggtgacagag aggacacctg ggcccagcaa cttcaggagg atagaaatgg 2760
ggtctgagac caaagggacg gcagcaaggt agtcaagacc agtcgatcag aggggaacca 2820
agaactgact tcagaacccc atgaggcaat gcctgggaca cgcttagaaa taggtgggag 2880
gagaggaatt tcaaggaggc tgatttcaag ttatccagat cttgattcaa gtcatagtaa 2940
tttgaacct aagagaaggc ctactgtac tctgctggag tactggccat acagatattc 3000
ctcatgagtt aagttttaat tgaaaaatagc atgacttgaa taaaagttag ttttaatgtg 3060
ttcctaaaat gcctcaagga aaggaaacaa aggcccaaag caccagaaac agggataatt 3120
ttaaaaattc aggctcagag agcgccagt ggtcctctcc accaaacca tgaggctgct 3180
tcaattctca gaaagtactt gagtgccatc tagtggccag agtgagtagc tgtttggaag 3240
gataagaagg aaagcattaa aggaaagcgt tcaaaagaca ttcaatgtct gtggtattga 3300
ttgtgctgac attgtgggccc aggcactgat ttaggcatag cggatacaac agcgaacaaa 3360
acaagccaag tctgtctcc agggacctaa catcctattg gcaggagggg gtgacagaag 3420
gtaaacaaat aaacaagtct gtaacgtcag gcaataataa gtgtcatgcg gaaaaatgaa 3480
gcacggaatg aaggaattct actttacaga aggttgata gcacacctct gaatatctgg 3540
ggaaaccatt ccaagacaat ggaaagacta gtgcaaaggc cctggagtga gagtattctt 3600
ggtgtattca aggaacaggg aaaagactaa gaggatccag tgagggaggg ggatagggtta 3660
ggatataatg ccggagagat atcaggggct agatcatgca gccccggga accattggga 3720
gggctctggg agatttgggg agttgttgtt gttgttgttg ttgtttggtt tggtttgggt 3780
tgagactgtg ttttgctctt gtcgcccagg ctggagtga atgggtgcaat ctcggctcac 3840
tgcaatctct gcctcccagg ttcaagcagt tctcctgcct cagcctcctg aaggaatacg 3900
gcgtgcgcca ccacaccgg ataatttttt ttgtattata attattagag atgggatttc 3960
accatgttag ccaggctggg cttgaactcc tggcctcagg tgatctgccc gcctcagcct 4020
cccaaagtgc tgagattaca ggcatgagcc actgtacctg gccgatttg ggaagttttt 4080
taatattatg tcatagggac agggctcttg catgtttccc agactggtct tgaactcctg 4140
gactcaagcg atcctcccac ctcagcctcc caaagtgtg ggattacagg cacgagtcac 4200
cacacctttg gttggacttt ggtttttact cagagtga tggagtatgg gaaagttttg 4260
agctgagaag tgacctgacc taatttatgc ttaaagtga taattctggc ttctagactg 4320
agagtagaca gtaaagggga agcatcagca tgggtggaga acatgtggaa ggctagcaca 4380

gtgatccag taagagacga ctgaaggctg gaccagcagc cccagtgggc gtggtgggaa 4440
 gggtcagggt tctgatctat ttaacagggt gagtggatct ccagcggcca gtgatttaat 4500
 gaattatgcc tgtgaagtga aacctccgag aaaacccac agtcttgttt gtttgggggt 4560
 tggagagctt ccagggttagt gaagcaggga ggggcaggga gagtaggggt cccgggaggg 4620
 caaggaagcg ctgtgcccct ccccccacca caccttgacc tcggcatctc ttccgttggg 4680
 ctattcctga gtcgtatcct ccatcatgaa ccgataataa taaataaagt gcttttctca 4740
 - -gtcctgtgag tcatttcagc aaattattga acctgccggg gactgtggga acccttgaat 4800
 ttgtcaccaa gtcagacaga gatgccagtg gtctgggcac cccatttgca actggcatct 4860
 gatatgaggc cagctcttca ctgaaacct aaacctgtga ggtttgatgc caactccagg 4920
 cagtcagtgat cagaattgca ctgtaggaca ccagttgggtg tctagagagt tgggtccaga 4980
 actggctggg gtgaggagga aaaaaagccc acacagccct cctccaggcc attcctcccg 5040
 ctacatggag tctcacgggc cttcacggag tgctcagagc ctcccgatca tcccactttt 5100
 agcacagcac ttttccactt ctggtcaatc tgatattaga atgtcctaca atgtgcttat 5160
 tagccatttt ttaaaactaa catttataaa atttatttag gccaggcacg gaggtcaca 5220
 cctgtaatcc caacatttcg ggaggccgaa gtgggcggat cacctcggat cagactggct 5280
 aacatgggtga aaccccatct ctactaaaaa taaaaacaa ttagccaggc gtggtgggtga 5340
 gtgactgtaa tcccaactgc ccaggaagct gggctgatgc aggagaatcg ctggaacca 5400
 ggaggtggag ggagcttgca gtgagccgag atcttgccac tgactccag cctgggaaag 5460
 agagagagac tctaagacct tttgctgaat tgaagcctct tggtaaacct atgatgtccc 5520
 atttaataga tgggcaaaact gaggtcaca gaaataaatc aggcacataa ggagtccttg 5580
 tccaagcaag ccgtgggttg aagcctgggc tctgccagtc caagtgaac caaagcatct 5640
 ccagaaattc ctggtggtgt gttacatcag caaatgagta ggcaatgtca ttcctcaacc 5700
 tgaagtcat ggcatcttg agattccacg aaagaggaag tctgcccctg gctccccgag 5760
 gcctgcttgc aggaatgagg aaggggctgt tctgctttca ggtggaaatg ttcaccagct 5820
 aagtgtggg ctgcccagaa ggcaaacagc cccctgggcc tgggacacat gcttttagtg 5880
 ccctggtagc atggcaggac atgcagtgc actcaagaag ctcccaaac catgagaggc 5940
 tgggaaaaat gctccctggc ccagttctaa tgtttcccaa taaggagctg cccgggcaga 6000
 cacagggggc cccacccatc ctgagaggct gggcctgggc tgacagacac actgctcgga 6060
 gagtctgcat cctggctctg cagacaggct ctagatgatg ggctggcgga gtgccatgt 6120
 ggaggtgcac acaccgtgt tagtatgggc ctgtacctgc tgcagcgtca gctggtctgg 6180
 gcctgtgctc ctggtccgcc tatagatgcc atgtggccca tctgaatctg tgactctgag 6240
 tctggcctac ccaggcctgg tttgatccta cccctgggc acgcccctg tgggtttcct 6300
 ctgggtgacg tttccttctt gctcttgttg actaggcgt gttcttgctg gctggtgccc 6360
 cagggcctgg agaggctctga agaaacctgg gagccagcag cccggggctc cactctgggt 6420
 tctgaaagcc cattccctgc tctgcggctc ctcccacccc acctcttctc agccttgag 6480
 ctcaagggtt gatctcagga gtccaggacc caggagaggg aagaatctga ggaacacaga 6540
 acagtgagcg ttgcccacac cccatctccc gtcaccacat ctccctcac cctcaccctc 6600
 cctgcctggc cctggacccc atcccaggac ctccctatca gctgacttct tccagtgtct 6660
 tgcaggcccc tctgggtctc tccctccctt ggcttttctt accactcccc ctctatcggc 6720
 gtctatctgt aggtgccctg ggatttataa aactgggttc cgaatgctga ataagagacg 6780
 gtaagagcca aggcaaagga cagcactgtt ctctgcctgc ctgataccct caccacctgg 6840
 gaacatcccc cagacacct cttaactccg ggacagagat ggctggcgga gcctggggcc 6900
 gcctggcctg ttacttggag ttcttgaaga aggaggagct gaaggagtct cagcttctgc 6960
 tcgccaataa agcgcactcc aggagctctt cgggtgagac acccgctcag ccagagaaga 7020

cgagtggcat ggaggtggcc tcgtacctgg tggctcagta tggggagcag cgggcctggg 7080
acctagccct ccataacctgg gagcagatgg ggctgaggtc actgtgcgcc caagcccagg 7140
aaggggcagg tgagtggaca gaggacccca ctgcccgcgg gacatcccct ggccctcatg 7200
cctgccctgc cctcttggga ccccaccact gagccctccc tgccaggcct tcctctgagc 7260
agtgacatgg aactgccctc tcaaaggggg atccaggccc cagactatgc tggagccagg 7320
aggcttgctg ggggggccct tgctgcacct cagagcccca caccctcttc tattcaagtg 7380
- - cattccccgt actgcctgg cattgtagtt atgagcacgg acttgggagt caggcactat 7440
caccagtcct ggcactatca ccctgggcca atcacttcac tgctctctgc ctatttctct 7500
gtctgcaaaa tgggagagtg agagcccggc tccttgggct gtgtgagggt taaaagagat 7560
catccagggt aaacatttag cacagagtct gatatacagt aagtgtctaa taaataagat 7620
ctcccattgc tgttgttgct gctgctgctg ctgctgttat tattactatt agccaccctg 7680
ggttgcatg gccgttggcc caataaagca cagctgaggc tcagtaggag tagtgattta 7740
cacagggaga tagtcaggac caagacagat atgcaaattt cctgaccta gatgaggatt 7800
ttttgcctag cagtatctat aagaacatca ttcttcagac aagcctctag aggaagtgtg 7860
agagggctgc agcgggttca ctggtgtatc ctgacctc tcgtgtgaga gaggagacca 7920
gctcagttcc ctggcacctt gccctgccc ctctgatgtg tctccaacct ctttgcctct 7980
ttcctgtagg ccactctccc tcattcccc acagcccaag tgaacccac ctggggctctc 8040
ccagccaacc cacctccacc gcagtgctaa tgccctggat ccatgaattg ccggcggggt 8100
gcaccagggt ctgagagaga agggttttga gacagctgcc tgacacatct ggacgccgt 8160
ggagaggtga ggcttgctga ggcaggctga cagccctggg tggagctgtg aatcagctgg 8220
tgggccccac ccagaggatc atgtctgtgc atggggacct gacatggggg acagcagagg 8280
aaggataggg gagccaggat gggctgtgag aggtaggcct gaaattgatc tttcagggac 8340
cttcgggtgc tgagattgca tccctcccca tgtggcagat ggggaagctg agaccatgt 8400
gggtcaggca atgagtcttc cccaactggg tgcccaactc gtgacatggc ccttgcccga 8460
gaactcagct cataatattg atgggctctg aagatcctta gggtcagggt ggtccagaag 8520
ttccaaggag gactctgttt tccagacaga cccaagaag aggtaggct tagtctctcg 8580
cccaagccag ctccctcaca tgacttctct cttcactact aagagaataa aattgcccct 8640
ctacttcaac atgggttttca aaataatatt attaagacc atctctcagg actgttgatga 8700
gagtttaaaa tatatgcacc taaaagaaaa taaatgttca gtaaattggtt atttttcttt 8760
tcattcccc cagaaatctc tgccctcact ctctaccaag ctcttccaag ctcccagac 8820
catgagtctc caagccagga gtcacccaac gcccacat ccacagcagt gctggggagc 8880
tggggatccc cacctcagcc cagcctagca cccagagagc aggaggctcc tgggacccaa 8940
tggcctctgg atgaaacgtc aggaatttac tacacagggt agaccctact gagctcctgg 9000
cgggggtggtg aggtgggaga ggcaaatgta tggacaaaga gtcccctggg gaccagggtg 9060
gcaggctaag cagaggttct ggaaaacatc tgaaatttcc ctgaggaaat cccacccttg 9120
gagcctctcc actggtccaa ggcactgttt ccaggaggca cctggacatt aaaatacaga 9180
tgtgttacct agcacatctg ggggacaaca gagcaaggag aggggagcct ggatggggtt 9240
acacatcacc tggtttactg gacagggcac tggcctgggg tcaggagagc tgggttcaat 9300
ttccactgag ctctcacc cacaagtggc ctacagctag tcccatgccc atcagtgtctc 9360
actggacact ctctgggtta gaccatgtcc agggctttac gtgtacattg gacttaaatt 9420
ttacaaccac tccgtgagat aaatattgct attatcatac cctggagatg agaaaaccaa 9480
ggattaaaaa gatagtctca cagttagtac tagcaaagat ggaattcagc cttcactctc 9540
tctcacgcag caatccacac ttttaactct tacacaggga gtgccctcat ctgggcaata 9600
aggacagtca tactaaagcc acaggtacag aggtctctga tgccacaggt tccttaacca 9660

ctgaaccatg ctgcctctca atgccggagg atgcctcctt tgaaatctga gaggttttaa 9720
gttaaaagga tttcttctgc acccagcaag gagtgaactt gtagattttg tggtcgtata 9780
tggcctaggg tcaaagtata tcagtttact taattactca caccacttgc cattcaaaaa 9840
aagaagccat gtaacaaacc tgcacatata ccgcgtgagt ctaaaataaa aaataaataa 9900
actcatgttt taaaaatcct gatagggtat ataaggaaag atcaacattc gagttaaact 9960
aaggaaaaca gaaagtcaag aaaggaagat tctaatactt taagttgttt ctttctatat 10020
- - ttgagaatca caaagataac ttttctcag aattattttg tgaattaaaa aatccaaaca 10080
ataaagacaa ttaaaactga aaaacagaaa agaaggaaga taggaagaat ataaagacat 10140
atcagagcca tctatagaag cataaaaatg cagtaacttt aaaagtgaag aaaacaagta 10200
tgaaaaccac aaagactacc tcattgctat aaataaagtt tccatcaatt gtgggcattc 10260
tagcaacact ggcaaaaggg gaaatataat ggggttacaca atacctgtta ctcaatagaa 10320
aagaccaatg caagggaat aacatttttc cctgattcta aattctaagg gaattcttca 10380
aatagggaac ttaaaaaaaa aacaacaaca aacttttatt ttagtttcag aaacacatgt 10440
gcaggtttgt tatataggta agttatgtgt cacaagtgtt tgggtgtacag attatcttgt 10500
cgcccaggta ataagcatgg tacctgttag gttgggtttt ttgtttgttt ttgtttttgt 10560
tttttgtttg ttgttttttg tttttgttg tgtttgttt tgagacagag tcttgctcgg 10620
tcaccaggc tggagtgcag tggcgtgatc tccactcact gcaagctctg cctcccgggt 10680
tcacgccatt ctctgcctc agcctcccg gtcgctggga ctacagggtgc ccgccacgaa 10740
gccctgctaa tttttgtat ttttagtaga gatgggttt caccatgtta gtcaggctgg 10800
tctcgaactc ctgatccgag gtgatccacc cacctcagcc acccaaagtg ctaggattac 10860
agggtgtgagc caccgcgccc ggcccggtag ttttttaate cttacccttc tcccactctt 10920
cactctcaaa aggtcccagt gtctattgtt ctttttatgt gtccatgtgt acgcaatgtt 10980
tacctctaac ttatgaatga gaacatgcgg tatttcattg tctgttcctg tgttagttca 11040
cttataatgc tctccaactc cattcaagtt gctgcaaagg catgacctca ttcattttta 11100
tggctgtgta gtattccatg tgtaaatgtc ccacattttc tttagcagta tgggtgattc 11160
catactggtg ctattgtgac tagtgctgca ataaacatac atgtacatgc atctttatgg 11220
tagaatgctc tacattcctt tgggtatata cccaataatg ggattgctag attgaatgat 11280
agttcagagt tctttggcaa atcgcgaaat tcctttccac agtggctgaa ctaatttaca 11340
ttcttaccag cagtgtataa gtgttcctgt ttctctgcaa tctaccaat atctgttatt 11400
ttttgacttt taaattatag ccattctgac tgggtgtagaa tagtacctca ttatgggttt 11460
gatttgcat tttctttttt tccagagaag gtctcttttt ttattctatt ctggccttca 11520
actgatggaa tgagagccac ccacatcagg gaggtgatc ttattttttt tttttttaat 11580
actttaagtt ctaggttaca tgtgcacaac atgcagggtt gttacatgtg tatgcatgtg 11640
ccatgctggt gtgctgcacc cattaactca tcatttacat taggtatata tcctaagtct 11700
atccctcccc cctcctccaa cccaacgaca ggccctggtg tgtgatgttg cccttcctgt 11760
gtccagggtg tctcattgtt catttccac ctatgagtga gaacatgcgg tgtttggttg 11820
tttgtccctg cgatagtttg ctgagaatga tggtttccag cttcatccat ttccctacaa 11880
aggacatgaa ctcatccttt tttatggctg catagtattc catggtgtat atgtgccact 11940
ttttcttaat ccagtctatc attgatggac atttgggttg gttccaagtc tttgctattg 12000
taaatagtgc cacaataaac atacgtgtgc atgtgtcttt atagcagcat gatttataat 12060
cctttgggta tataccagc aatgggatgg ctgggtcaaa tgggtatttct agttctagat 12120
ccttgaggaa ttgccacact gtcttccaca atgggtgaac cagtttacag tcccaccaac 12180
agtgtaaaag tgttcctatt tctccacatc ctctccagca cctgttggtt cctgactttt 12240
taatattcac cattctaact tgtatgagat ggtatcccat tgtggttttg atttgcattt 12300

ctctaattggc cagtgatgat gagcattttt tcatatgtct gttggctaca taaatgtctt 12360
cttttgagaa gtgtctgttc atacccttca cccacttttt gatggagttg tttgtttttt 12420
tcttgtaaat ttgtttgagt tctttgtaga ttctggatat tagccctttg ttagatgagt 12480
agattgcaaa aattttgtcc cattctgtag gttgcctgtt cactctgatg gtagtttctt 12540
ttgctgtgca gaagctcttt agtttaatta gatctcatat gtcaattttg gcttttgttg 12600
ccattgcttt gaatgtttta gacatgaagt ccttgcccat gcctatgtcc tgaatggat 12660
- tgcctagggt ttcttctagg gtttttatgg ttttaggtct gacatttaag tctttaatcc 12720
atcttgaatt aatttttgtg taagggtgaa ggaagggatc cagtttcagc tttctacata 12780
tggttaacca gttttccag caccatttat taaataggga atcctttccc catttcttgt 12840
ttttgtcagg tttgtcaaag atcagatggg tgtagatgtg tggattatt tctgagggct 12900
ctgttctgtt ccattgggtc atactctctgt tttggtacca gtaccatgct gttttggtta 12960
ctgtagcctt gtagtatagt ttgaagtcag atagcatgat gcctccagct ttgttctttt 13020
ggcttaggat tgtcttgga gtgcgggctc ttttttggtt ccatatgaac ttttaagtcg 13080
ttttttccaa ttctgtgaag aaagtcattg gtagcttgat ggggatggca ttaaacttat 13140
aaattacctt gggcagtatg gccattttca tgatattgat tcttcctatc catgagcatg 13200
gaatgttctt ccatttgttt gtgtcctctt ttatttcatt gagcagtggg ttgtagttct 13260
ccttgaagag gtccttcaca tcctttgtaa gttggattgc taggtatttt atttctcttg 13320
aagcaattgt gaatgcaagt tcactcaaga tttggttctc tgtctgttat tgggtgtgaa 13380
gaatgcttgt gacttttgca cattgatttt gtatcctgag acttcgctga agttgcttat 13440
cagcttaagg agattttggg ctgagacgat ggggttttct aaatattcag tcatgtcatc 13500
tgcaaacagg gacaatttga cttcctcttt tcctaattga atacgcttta tttctttctc 13560
ctgcctgatt gccctggcca gaacttccaa cactatgttg aataggagtg atgagagagg 13620
gcatccctgt cttgtgccag ttttcaaagg gaatgcttgc agtttttgcc cattcagtat 13680
gatattggct gtcggtttgc cataaatagc tcttattatt ttgagataca tcccatcaat 13740
acctaattta ttgaggggtt ttagcatgta gggctgttga attttttcaa aggccttttc 13800
tgcacttatt gagataatca tgtgggtttt gtctttggtt gtgtttatat gctggattgc 13860
atattattgat ttgcgtatgt tgaaccagcc ttagcatccc agggatgaag cccacttgat 13920
catgctggat aagctttttg atgtgctgct ggattcgggt tgccagtatt ttattgagga 13980
tttttgcatc aatgttcac agggatattg gtctaaaatt cttttttttt tgttgtgtct 14040
ctgccaggct ttggtatcag gatgatgctt gcctcgtaaa atgagttagg gaggattcct 14100
tctttttcta ttgattggaa tagtttcaga aggaatggta ccagctcctc cttgtacgtc 14160
tggtagaatt tggctgtgaa tccgtctgga ttggtaggct attaattatt gcctcaattt 14220
cagagcctgt tattggtcta ttcagggtt caacttcttc ctggtttagt cttggaaggg 14280
tgtatgtgtc caggaatgtg tccatttctt ctagattttc tagtttattt gtgtagagg 14340
gtttatagta ttctctgatg gtagtttgta tttctgtagg atcgggtggg atatccctt 14400
tatcatttct tattgcatct atttgattct tctctctttt cttctttatt cgtcttgcta 14460
gcggtctatc aattttgttg atcttttcaa aaaaccagct cctggattca ttgatttttt 14520
gaaagggttt ttgtgtctct gtctccttca gttctgtctc gatcttagtt atttcttgcc 14580
ttctgttagc ttttgaatgt gtttgcctt gcttttctag ttctttctat tgtgatgta 14640
gggtgtcaat ttttagatctt tctgtcttct tcttgtggg attttagtct ataaatttcc 14700
ctctacacac agcttttaaat gtgtcccaga gattctggta tgttgtgtct ttgttctcat 14760
tggttttcaa gaacatctt atttctgcct tcatttcgtt atgtaccag tagtcattca 14820
ggagcagggt gttcagtttc catgtagttg agcgggtttt agtgagtttc ttaatcctga 14880
gttctagttt gattgcactg aatgggtctga gagacagttt gttataattt ctgtcctttt 14940

acatttgctg aggagtgcct tacttccaac tatgtggtca attttggaat aagcgcaatg 15000
tgtgctgaga agaatatata ttctgttgat ttgggtgga gagttctgta gatgtctatt 15060
aggtecccttg gtgcagagct gagttcaatt cctggatatc ctttttaact ttctgtctcg 15120
ttgatctgtc taatgttgac aggggggtgt taaagtctcc cattattatt gtgtgggagt 15180
cttaagtctc ttgttaggtc tctaaggtct tgctttatga atctgggtga tccgtgattg 15240
gggtgcatata tatttaggat agttagctct tcttggtgaa ttgatccctt taccattatg 15300
- - taatggcctt ctttgtctct tttagtcttt gttggtttaa agtctgtttt atcagagact 15360
aggattgcaa cccctgcctt tttttgtttt ccatttgctt ggtagatctt cctccatccc 15420
tttattttga gcctatgtgt gtctttgcac gtgagatggg ttctctgaat acagcacact 15480
gatgggtctt gactctttat cccatttccc tgtctgtgtc ttttaatcgg agcatttagc 15540
ccatttacat ttaagggttaa tattgttatg tgtgaatttg atcctgtcat tatgatgtta 15600
gctgggttatt ttgctcatga gttgatgcag tttcttccca gcattgggtg tctttacagt 15660
ttggcatgtt ttgacagtgg ctgataccgg ttgttccctt ccatgttttag tgcttccctc 15720
aggaactctt ttagggcagg cctgggtggg acaaaatctc tcagcatttg cttgtctgta 15780
aaggatttta tttctccttc acttatgaag cttagtttgg ctggatatga aattctgggt 15840
tgaaaattct tttctttaag aaagtgaat attgccaggc gtggtggctc acacctgtaa 15900
tcccagcatt ttgggaggcc gagatgggca gaccatgagg tcaggagatc gagaccgtcc 15960
tggctaacat ggtgaaaccc catctctact aaaaaataca aaaaaaatta gccgggcgtg 16020
atggcgggca cctatagtcc cagctgctca ggaggctaag gcaggagaat ggcataaacc 16080
tgggaggcgg agcttgcatg gagccgaggt tatgccactg cactccagcc tgggtgacag 16140
agcgagactc catctcaaaa aaaaaaaaaa aaaaagaatg ttgaatattg gccccactc 16200
tcttctggct ttagagattt ctgccgagag atccactgtt agtctgatgg gcttcccttt 16260
gtgggtaacc cgacctttct ctctggctgc ccttaacatt ttttccctca tttcagcttt 16320
ggtgaatctg acaattatgt gtcttgaggt tgctcttctt aaggagtatc tttgtgggtg 16380
tctctgtagc tctgaattt gaatgttggc ctgccctgct aggttgggga agttctctctg 16440
gataatatcc tgcagaatga ttccaactt ggttccattc tccccgtcac tttcaggtag 16500
accaatcaga ttagatattg gtcttttcac atagtcccat atttcttgga ggctttgttc 16560
gtttcttttt actctttttt ctctaaactt ctcttcttcc ttcatttcat tcatattggtc 16620
ttcaatcact gatacccttt ctccagttg atcgaattgg ctactgaagc ttgtgcattc 16680
ttcacgtagt tctcgtgcca tggttttcag ctccatcagg tcatttaagg acttctctac 16740
actgggttatt ttagttagcc atttgtctaa tcttttttca aggttttttag cttctttgtg 16800
atggattcga acttctcct ttagctcgga gaagtttgat cttctgaagc cttcttctct 16860
caactcatca aagtcattct ccgtccagct ttgttccatt gctggcgagg agctatgttc 16920
ctttggaggg ggagaggcgc tctgattttt agaattttca gcttttctgg tcagtttttt 16980
ccccatcttt gtggttttat ctacctttgg tctttgacat aaagatgggg ttttgggtgtg 17040
gatgtccttt atgtttgtta gttttccttc taacagtcag gacctcagc tgcaggctctg 17100
ttggagtttg ctggaggctc actccagacc ttgtttgcct gggatatcagc agcagaggct 17160
gaagaacagc gaatattgct aaacagcaaa tgttgctgcc tgatccttcc tctggaagct 17220
tcgtctcaga gaggtagacg gctgtgtgag gtgtcagctt gccctactt gggggtgctt 17280
cccagttagg ctactcgggg gtcagggacc cacctgagga ggcagtctgt ctgttctcag 17340
atctcaaact ccagtctggg agaaccgctg ctctcttcaa agctgtcaaa cagggaacatt 17400
taagtctgca gaggtttctg ctgccttttg tttggctatg ccctgcccc agagggtggag 17460
tctacagagg caggcaggcc tctttgagct gcggtgggct ccaccagtt caagcttccc 17520
agctgctttg tttacctact caagcctcag caatgggtggg caccctccc cccgcctcac 17580

tgccgccttg ctgttcaatc tcagactgct ggctagcaat aagtgaggct ccgtgggtac 17640
aggaccctct gagccaggca cgggatataa tctcctgggtg tgccgtttgc aaagaccgtt 17700
ggaaaagtgc agtattaggg tgggagtgc ccaattttcc aggtgccatc tgtcacagct 17760
tcccttggct aggaaaggga attccctgac cccttgcaact tcccagggtga ggcaatgcct 17820
cgccctgctt tggcttatgc tcggtgggct gcaccactg tcctgcaccc actgtctgac 17880
aagccccagt gagatgaacc tggtagctca gttggaaata cagaaatcac ctgtcttctg 17940
- cgctgctcac cctgggagtt gtagaccgga gctgttccta ttcggccatc ttggaaccac 18000
cccaatttgc attttgctaa taataagtga tgttgagcat tttttcatat gctgttggcc 18060
atgtgtatgt cttcttttga agagtctatt ggtgtccttt gtccactttt tttttttttt 18120
ttttctgaga caaagtatca cactgtcatc caagctggaa tgcagtgggtg agatctctgc 18180
tcattgcaac ctccacctca cgggctcaag ggattctcct gcctcacccct cccaagtagc 18240
tggtgattaca ggtgtgcacc actacgcccga gctaattttt gtattttttta gtagagatgg 18300
tctgttggcc aggtgtgtct cgaattcctc acctcaagtg atctgtccac ctgagtcctc 18360
aaagtggtag gattacaggc atgagccacc atgcctggcc atttgtccac tttttaatgg 18420
gattgttttt ggcttattaa tgtgtttaag ttccttatag attctggata ttccaacttt 18480
gtcagatggg tagtttgcaa atattttctc ccattctgtg ggttgtctat ttactttgtg 18540
ggtagtttct tttgctgtgc agaagttctc tagtttaatt aggtcccat tgtcaatttt 18600
tgttttcatt gcaattgttt ttggcatctt cctcatgaaa tttttgccag gacctatgtt 18660
cagaatagta tttcctaagt tttcttcaag ggtttttaaa gttctagggt ttacgtttta 18720
gactttcatc catcttccat tgatctttgt atatagtatc aggaaggggt ccagtttcag 18780
tcttctgcat atggctagcc agttatctca gcatcacgta ttgaataggg aatgctttcc 18840
ccattgcttg tttttgtcaa cattatcaaa gatcagatgg ttgtagatat acagctttat 18900
ttctgggcat tttattctgt tccattggtc tatgtgtctg tttttgtacc agtagcatgc 18960
cgttttgggt actgttgccct tgtagtatag tttaaaaata ggtaatgtga tgcctccaga 19020
tttgttattt tttacttaga attgctttgg ctatttgggc tgttttttgg ttccatatta 19080
attttagaat ttctttctca ttatgtgaag aatgtcattg gttgcttgct aggaatagca 19140
ttgaatctgt aaattgcttg gagtagtatg gcgattttta caatattgat tattcctatt 19200
catgagcatg gaatgttttc cattgtgtgt tgtatcatct ctgatttctt tcagcagtg 19260
tttgtagttc ttgctataga gatctttcac aatcctgggt agatgtattc ctaggtactt 19320
ttttgtggct attgtgaatg ggattgcatt cttgatttgg tgcttattgc acaatgttac 19380
ataatactta ctacccaata gaagaaattg attttgtatc ctgaaacttt gctgaagtgt 19440
tttattagat ctacagatg tgggacagag actaggaggt tttctaggta taaaatcata 19500
acatctgcaa acagagatac ttgacttcc tctcctccta tttggatgtc ttttacttct 19560
ttctcttacc tgattgctct gggtaggact tctagtacta tgttgaa'tag atggtgagaa 19620
tgagcatcct tgtcttgttc tggttctcaa ggagaatact tccagctttt gccattcag 19680
tgtgatgttg gctgtgggtt tgtcataaat ggcccttatt attttgaggt atgctccttc 19740
aatgtctagt ttgttgagag ttttaacatt gaaggatgtt gaattttatc aaatgctttt 19800
tnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 19860
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 19920
gtagaaattg tacgagctct tctttatgtg tctggtagaa ttcagctgtg aatctctctg 19980
gtcctggcct ttttctgggt gttagaattt ttattactga ttcaatttta gaactcggtta 20040
ttgctctgtt cagagtttta atttcttctt gggtcagtc taggaattta tttctttag 20100
gtttttctag tttctgtata tagaggtgtt cgtaaatagtc tctgaggggt ttttatattt 20160
ccacgggggtc aatggtaatg tcctctttgt catttctggt tgtgtttatt tggatcttct 20220

gtcttttttt tttcttttatt agtctagcta gtgggtctatc gatcttattt attcttccaa 20280
agaatgaact tttgggttttg ttgatctttt gtatgggtttt ttccatctca attttattca 20340
gttcagctct gatttttggtt atttcttgtc ttctgctagc tttgggattg atcttgctct 20400
tgtttttcta attcttctat ttgtgatgtt aggttgctaa tttgagattt ttctaacttt 20460
ttgatatggg catttactgc tataaaacttt ccactgcttt atctgtgtcc cagagaattg 20520
gcatattgta tctttgttct aattggtttc aaagaatttc tttatttctg ccttaatttc 20580
attgtttacc caaaagccac tcaggagcag gttgtttaat ttccatgaat tgtatgggtc 20640
tgagctatct tcttagtatt gatttttttt aattgtgcag tggccaaga gtgtggctgg 20700
tatgatttgg gttttttaa atttgctgag aactttttat ggcagattgt gtgggtgatt 20760
ttacagtata tgccatgtgc aaatgagaag aatatatatt ctggtgtttg ggggtggagag 20820
ttctgtagat gtctcttagg cccatttggt caagtgtcga atttaggtcc caaatatctt 20880
tgtagtatt ctgccttgat gatctgttca atactgtcag tgggtgaagt ctcccattat 20940
tactatatgg ttatctaagt ctcttcatca gtctctaaga actcgtctta tgaatctggg 21000
tgctcctgta ttggatgcat ataatattcct gacagttaaag tcttcttggt gaattgaacc 21060
ctttattatt atgtgatgcc tttctttgtc ttttttgatt gatgttgatt tgaagtctgt 21120
tttgtgtgaa attagaatgg caatccgtgc ttttgtttgt tttccatttg cttggtagat 21180
ttttcccat ccttttactt tgagcctatg aatgtcattg catgtgagat ggatctcttg 21240
aagacagtat ccagtgggc catgcttctt tattgaactt gccactctgt gccttttaat 21300
gggagcattt agccattta catttggtt aatatcgata tgtgtgagtt taatcctgtc 21360
atcatgttgt tagctgatta ttttgcagac ttgattttgt agttgcttga tagtatcagt 21420
ggactgtgta ctttagtgtg ttttatgggt gccagtgatg gtcttttggt tccatattta 21480
gcactccctt aagaacctct tgtaaggcag gtctgggtgt aataaattcc cttagcattt 21540
gcttgtctga aaaggatctt atttctcctt cgcttataag gcttagtttg gctgtatatg 21600
aaattcttgg ttggagcaca gtcatagtgg taggtggcca cgggggtgct tgtgtcactt 21660
tctaattgagg ttaaagggtg ctttaggtgg cttagaagag acagagactg tatgtttggc 21720
agaaagtaag gaaagagaac aagagtctct gcctggtaac ctagataatt caaccagatt 21780
ttgtctaaga ctattaaggt ggtacctcta tgactgtgca agaaccacag cattactggg 21840
cttaggtgtc cctctaaagc agaaatgcct tagatcacaa aactcaagtc ctttcaaate 21900
tggaagcctt ttccaaaaag gctgcctata aataagcctg gacagtgaag actacaataa 21960
atgctcaact cttcaatgcc cagacactga agaactctta ctagcattaa caccatccag 22020
gaaaacatga cctcaccata aggcacatcagg gaccaattct ggagaaagag agatatgtga 22080
cctttcagac agaattcaaa atagctgtgt tgaggaaatt caaagaaact caagataaca 22140
cagagaagga attcagaatt ctagcagata aatgtaataa agagattgaa ataattaaaa 22200
ataatcaaac agaaattctg gagctgaaaa aattcaattt gcatactgaa gaatgcatca 22260
gagtcctttc atagcagaat ggatccagca gaagaaagaa ttagtgagct tgaagacagg 22320
ctataattga aaatacacag aagggacaaa agaaaaaaga ataaaaaaa caatgaaaca 22380
cacctgcagg atctagaaaa tagcctcaaa atggcaaatc taagagttat tggccttaag 22440
gaggaggtag tgaaagaaat aggagtagaa gttttattca aagggataag agaaaatttc 22500
ccaaacctag ggaaagatat ccaagtacaa gaaggtttta gaacaccgag tagatttaac 22560
ccaaagtaga ctacctcaag gcatttaata atcaaactcc caaaggtaaa ggataaagaa 22620
aggattttta aagcagcaag agaaaagaaa caagtaacat actatggagt tccaatacat 22680
ctggccgcag acttttcatg gaaaccttac aggccaggag agagtggcat gacatattta 22740
aagttctgaa ggaaagaaaa cttttaccct aaatagtata tctggtgaaa atatctttca 22800
aacatgaagg agaaataaag attttcccaa acaaaagctg aaggatttca tcaataccaa 22860

accatccta caagaaatgc taaaaggagt acttcaatca gaaagagaag aacattaatg 22920
agcaatcatc acctgaaggt aagaaactta ctcataatag taagtacacc gaaaaacaca 22980
gaatattttt aactgtaac tgtggtgtat aacctctctt accctaagta gacagactag 23040
atgatgaacc aatcaaaaat aataactaca acaacttttc aagacacagt cagtaaaata 23100
atatataaat agaaacaaca aaaagtttaa aaagctggga aatgaagtta agtttttatt 23160
agttttcttt ctgcctgttt gtttatttgt ttatccaaat agtggtgtta tcagattaaa 23220
- ataataagatt ataagatggt atttgcaagc ctcatggtta .cctcaaacca aaaaacataa 23280
aatggatata caaaaaataa aaatcaagaa accaaattat atcaccagag aaaatcatct 23340
tcactagagg aagacaggaa taaaagaaag aagagaagat caaaaacaa gcagaaaaaca 23400
aataataaaa tggcaagagt aagtccttac ttatcaataa taagtaatgt aaatggatta 23460
aactatccaa tcaaaagaca tagactggct gaatgaatga aaaaacaaga accaatgatc 23520
tgttccctac aagaaacaca ttccacctat aaagacacac ataaacagaa aatgaagtga 23580
tggaataata tattacatgc cagtggaaaa caaaaaagag cagaagtcac tatacttgta 23640
tcagacaaaa tagattttcaa acaaaaaact atacaaagag agacaaagaa ggtcactata 23700
taatgataat ggagtcaatt cagcaagagg atataacaat tttaaataa tatgcaccca 23760
acacaggaac acccagatat gtaaaggaaa tattattaga gctaaagaga gagataggcc 23820
tcaatacaat aatagctgga gactttaaca cccactttt agcattggac gtatcttcca 23880
gacagaaaat cagcaaagaa acatgaaact taatctgcat tacagaccaa atggatctaa 23940
tagatattta cagaacattc catccaagag ctgcagaata cacattcttt tcctcagcac 24000
atggatcatt cccaaggata caccatatat tagctcacia aacaagtctt aaaacattca 24060
aaaaattgaa ataatatcaa gcatcttctc tgaccacaat gcaataaaat tagaaattaa 24120
taataagagg aatttagaaa actacataaa tacatgaaaa ttaaacaata tgctcctgag 24180
tgaccagtgg gtcaatgaag aaattaagaa caaaataaag aaagaaaaat ttcttgaaac 24240
aaatgatcat ggaaacacaa tataccaaaa cctatgggat atattaagag agaagtttat 24300
agctataagt gcctatatca aaaaagagga aaaacttcaa ataaacaatc taatgatgca 24360
tcttaaagag agaaaagcag gaacaaacca aaccactat tagtagatga aaagaaataa 24420
caaagatcag agcagaaata aatgaaatta aaaagaaaaa atacaaaaga tcaatgaaac 24480
aaaaagttga ttttttgaaa agttaaaatc gacaaacctt tagccaagct aagaaaaaaa 24540
gagagaagat ctaaataaat aaaatcagaa atgaaaaagg aaacatttca gctgatactg 24600
cagaaattca agggatcatt agtggctgct atgagcaatt atatgccaat aaattggaaa 24660
atctagaaga aatggacaaa tctctagata catacagcct accaagactg aactaggaag 24720
aaatccaaaa cctaaacaga ccaataacaa gtaacaacat ggaagccgta ataaaaagcc 24780
ttacagtga gaaaagccaa ggactggatg gcttctactg tgaaattcta cccaacattt 24840
aagaagaact agtatcagtc ctactgaaac tactccgaaa aaatagagga ggaaggacta 24900
ttaccacact cattctctga ggccagtatt accttaatac caaaaccaga caaaaacaca 24960
tcaaaaaatt gactaaaaac ttaaacttaa gacctcaaac tatgaagcta ctacaagaaa 25020
acattgggga aaatctccag gacattggctc tgcaaagatt tcttgagcaa taacacacaa 25080
gcataggcaa ccaaagcaaa catggacaaa caagatcatg tcaagttaaa aagcttctgc 25140
acagtgaggg atacaataaa caaagtgaag agacaacca cagaatggga gaaagtattt 25200
gcaaaactacc cttcagacaa gggattaata accagaatat ataaggagct caaatgactc 25260
tataggaaaa aatctaaaat tcgatcaaaa aatagttaaa agattagaat agacgtttct 25320
cagaagaaga tatacaaatg gcaaacaggc atatgaaaag gcattcaaca tcactgatag 25380
tcagagaaat gcaaatgaaa actgcaatat cacctcacc cagctaaaat ggcttttatc 25440
caaaagacag gcaagaacaa attcttgtga ggggtgtggag aaaaggaaac tctcatcac 25500

tgttgggtggg aacgtaaaatt agtacaacca ctatggagaa cagtttggag tttcctcaaa 25560
aaactaaaaa ttggctgggc gcagtggctc atgcctgtaa tcccagcact ttgggaggcc 25620
gagtggtggca gatcatgagg tcaggagatt gagaccatcc tggctaacac agtgaaaccc 25680
catctctact aaaaacacaa aaaattagcc aggtgcagtg gcgggcacct gtagtccag 25740
ctactcggga ggctgaggca gcagaatggt gtgaaccag gaggcggagc ttgcagttag 25800
ccaagattgc gccactgcac tccagcctgg gcaacagagc aagactctgt ttaaaaaaaa 25860
- aaaaaaaaaa aaaacactaa aaattgagca atctcactgc aggggtatata tccaaaagaa 25920
aggaaatcag aatatcgaag agatacatgc acttctatgt ttgtggcagc actgtttata 25980
atagccaaga ttggaagcaa cccaagtgtc catcagcaga tgaacagata tagaaaacgt 26040
ggtgcatata catactattc agccatcaaa gagaatgagt cccagtcatt tgcaacaaac 26100
atggatgaaa ctggagatta cgttatgtga aataagccag gcacaggaag acaaacatca 26160
catgtttctca cttatttgtg ggatctaaaa ctcaaatcaa ttgaactcat ggacatagag 26220
agcagaagga tggttaccag aagctgagaa aagtagtggg gggcaagagg gaaagggtggg 26280
gatagttagt gggtaaaaaa aaatagaaag aatgaataag acccactgtt tgatagcaca 26340
ataggggtgac tatagtcaat aataaattaa ttgtatactt ttaataaca aagaatatag 26400
ttggattggt tgtaactcaa aggttaaatg tttgaggagc tgcatacccc attctccatg 26460
atgtgcttat ttacagtgc ttacttgtat caaaccatct catggatccc cataaataca 26520
tacacctact acatatccac aaaattttta aaaaaataatt ttaaaatttt aaaaaagaaa 26580
agaaattatt ggctggaatt tcttttcttt aaggatgctg aatataggcc cccaatctct 26640
tctgccttgc agggcttctg ctgaaaagtt cactgttagc ctgatgaggt tcccttttta 26700
ggtgacctgc cccttctgtg tctagctgcc tttattgttt tttctttcat gttggccttg 26760
gagaatctga ggacttgggg aatctgagaa ctatgtgttt tagggatgat tgtcttgtat 26820
agtatctcac aaggattctt tgcatttctt gaatttaaat gttggcttct ctagggagggt 26880
tggggaaact tttgtggaca atatcttcaa atacgttttc caagttgctg gcttttctcat 26940
gctctttcag ggatgccagc gagtcataga tttggtctct ttccaaaatc ccatattcct 27000
cagagggtgtt gttcatttgt tttcattctt ttttattttt gtctgactga gttaatttgg 27060
agaaccagtc ttcaggctct gagattctt cctcagcttg gtctatcctg ttgttaatac 27120
ttgctattgt attatgaaat tctttagtg agatttccag ctctatcaga tcagtttggg 27180
tctttcctaa aatgaccatt tcgtctttca gctcctgtat cattttatca tattccttag 27240
attgcttggga ctggattttg actttctcct gaatctcaat gatcttcatt cctactcata 27300
ttctgaattc tatgtctgtc atttcagcca tttcagcctg ttaaaatacc attgctgagg 27360
cactagtga cacatctgga gataggaaga cactgtggct ttttgagtta ccagagctct 27420
tgagctgggt ctttctcgtg tgtgtgggct gatgttcctt taatctttga agttgtcttc 27480
ctttggatgg ggtttttttt gttttgttt tatcttgttt gaagcccttg ggggtttgat 27540
tgtcgtataa ggtgggttca gtcaactggc ttcgattctg gaagatttca ggtggccaag 27600
gctcagctca gcactcctga gctgcctgct ctaactctag aaggctggta ctgggtcccc 27660
agccttttcc tctggcctcc tggggttcag aacctgctgc attagagggg ccaagggtgtt 27720
cccagtcgc tggcctcaac agtccagtgg ggggtgcaggc caaagtgtt ccttgtggca 27780
gtgccagcag gatctgtgct cactcacaca tggcaccagc cacagtggca tggcagggtg 27840
cgtgtgtgtt ggctggggca gggcactggt gggagccttt gccttagttt tcatggcact 27900
gaatactga aaacattttg gtgttgatt ttggggccgc catccagtag gcagtgtta 27960
agagtgatca ccaggagata cactcttact ctgctgcgtg gttcttcatg tttcagtaca 28020
gttggcagta gtgttctgtg tgtgttgggg acaggggggt gaccttctca cttagtccac 28080
tcctgggcct tagacaagac cttcttgatt actggctcca cacctgcatt tcttttgttg 28140

gggtgttctgg taaacgggggt tccttcaggc agggggccgtg gttggcagac aggccgtatc 28200
cttgctgggt ccgccctgca gagagaggca tacctcctcc acctcactcc tccaccagcc 28260
tacaaactcg gacatctcac ctctgtcagt gataagagaa tgagggctct tccctgcttg 28320
ggcattgtcc aaaccagcaa gtcctgctca gctaggatct gcagaagtgg gtgggggtcac 28380
gtaatcagct gtctgggtgc tccccagagg aacaggggat ggcacccacc cacagagtag 28440
cgggactgct gggctggaag ctctagcagg tgtggcccat ctggctacca caggcagagg 28500
- -tggttgaggt caccaccct gccatctggg tgtttccctg ggcagtaaca ggaggctgca 28560
cccctcagcc ggattcagac agaattagga ccactgcgt ggaagctcta gcagacatgg 28620
cctgcatggc taggagaggc ggtggtgggt ggagtcaccc acctgcctt cagagtgttt 28680
ctcggggaac cgggagtttg cctctgctgg ctgagttcag acagaagcag actgctagca 28740
gacattgccc gcctggctac cagtggcagg gatgggcaga gtcacccct ctgctgtcca 28800
agtggggaac ctgaacaaaa taatatccca aagaacagtt tcatggcaag tataaaaaacc 28860
acatggggcc gggcgcggtg gctcacgct gtaatccag cactttggga ggccgaggcg 28920
ggtggatcat gaggtcagga gatcgagacc atcctggcta acaaggtgaa acccctgtctc 28980
tactaaaaat acaaaaaatt agccgggccc ggtggcgggc gcctgtagtc ccagctactc 29040
gggaggctga ggcaggagaa tggcgtgaac ccgggaagcg gagcttgag tgagctgaga 29100
ttgcgccact gcagtcgcga gtccggcctg ggcgacagag cgagactccg tctcatataa 29160
actgatcacc tgatgagcat accacatggc atgctttttg atctatcaag agcaaaggta 29220
ggaaaacttg ggtgagtaaa agacaaaata gtaggctggg tgcagtggcc catgcctgta 29280
atcccagcac tttgggaggc tgaggcgggc agatcacgtg aggtcaggag tttgagacca 29340
gcatggccaa catggtgaaa ccccatctct acaaaaatac aaaaattagc tggcgtgatg 29400
gcgggtactt ataatcccag ctactctggg ggctgaggca ggagaatcgc ttgaccctgg 29460
gaggcggagg ttgcggtgag ccgagatcgt gccactgcac tccagcctgg gtgacaagag 29520
agaaactctg cctcaaaaaa ataaataaaa taaaatgaaa ttcacctaag gagagaaggg 29580
agaggcactg aacatattgt gaagaaaaga acagaagagg ttgtaactgt tgttctatatt 29640
ggaatctgac taagatagga gcctgaggtc cctccctggg aaacaatggg gtatataacc 29700
tcagcttctc acaggtcag aggtatcttc catcagtctc aggtcgggct cgcccgaag 29760
cctgagaccg gatttggttg cagggtggctt actggggagg tgatttcttg gactcatcaa 29820
caagagagaa tggtagggcg gggaaaccca ggaaaggtag attatggaac aggttacctt 29880
gtgagcaact gaggtccat gctgctgcgg ttgtctggga gacggtgaga acatgcctga 29940
gtgttatctg tcctgggggc aagggaaccc acctgtcatc cactaagggc acctcctgga 30000
ctggagaact atcctccagt atttctggcc caccggctt acaggcagag aaagagccct 30060
cagacagatg accacagctg ttgccgagg acaccattgg caggtagtgc aatagcaggt 30120
gcttgggatg ctgtcagcat ctgctacaca ctccagtgtc tcctccagtc ctccatgacc 30180
tacaaccccc agcttacaga tgagaaaact gaggctcata ggggctaatt gccagcatca 30240
taagcttagt gaggactgag agttgtgtct gttttgttca ctctttatcc ccaaccctta 30300
tagcagcacc tggcacagag taagcccttg ataaatatc agtgaaggaa agtcattcag 30360
ggagtgtgac ttagttgagt caagacttga actgggatat tctaccccaa agcacatgtc 30420
cttccgccc atggcaagaa cataccagtg tctgcagaca gcgcagtgtg tggcttgag 30480
taggtgccta aaacagttgt ttaattaatt aattaattct tctattctct acctttatgt 30540
tccttctttt cctcccttac ttagaaatca gagaaagaga gagagagaaa tcagagaaaag 30600
gcaggcccc atgggcagcg gtggtaggaa cgccccaca ggcgcacacc agcctacagc 30660
cccaccacca ccatgggag ccttctgtga gagagagcct ctgttccaca tggccctgga 30720
aaaatgagga ttttaaccaa aaattcacac agctgctact tctacaaaga cctcacccca 30780

gaagccaaga tcccctgggc aagagaagct ggcctgatta tgtggaggag aatcgaggac 30840
atttaattga gatcagagac ttatttggcc caggcctgga tacccaagaa cctcgcatag 30900
tcatactgca gggggctgct ggaattggga agtcaacact ggccaggcag gtgaaggaag 30960
cctgggggag aggccagctg tatggggacc gcttcagca tgtcttctac ttcagctgca 31020
gagagctggc ccagtccaag gtggtgagtc tcgctgagct catcggaata gatgggacag 31080
ccactccggc tcccattaga cagatcctgt ctaggccaga gcggctgctc ttcctcctcg 31140
- atggtgtaga tgagccagga tgggtcctgc aggagccgag ttctgagctc tgtctgact 31200
ggagccagcc acagccggcg gatgcaactgc tgggcagttt gctggggaaa actatacttc 31260
ccgaggcatc cttcctgatc acggctcggc ccacagctct gcagaacctc attccttctt 31320
tggagcaggc acgttgggta gaggtcctgg ggctctctga gtccagcagg aaggaatatt 31380
tctacagata ttccacagat gaaaggcaag caattagagc ctttaggttg gtcaaataca 31440
acaaagagct ctggggcctg tgtcttgtgc cctgggtgtc ctggctggcc tgcacttgcc 31500
tgatgcagca gatgaagcgg aaggaaaaac tcacactgac ttccaagacc accacaacc 31560
tctgtctaca ttaccttgcc caggctctcc aagctcagcc attgggaccc cagctcagag 31620
acctctgctc tctggctgct gagggcatct ggcaaaaaaa gacccttttc agtccagatg 31680
acctcaggaa gcatgggtta gatggggcca tcctctccac cttcttgaag atgggtattc 31740
ttcaagagca ccccatccct ctgagctaca gcttcattca cctctgtttc caagagttct 31800
ttgcagcaat gtctatgtc ttggaggatg agaaggggag aggtaaacat tctaattgca 31860
tcatagattt ggaaaagacg ctagaagcat atggaataca tggcctgttt ggggcatcaa 31920
ccacacgttt cctattgggc ctgttaagtg atgaggggga gagagagatg gagaacatct 31980
ttcactgccg gctgtctcag gggaggaacc tgatgcagtg ggtcccgtcc ctgcagctgc 32040
tgctgcagcc acactctctg gactccctcc actgcttgta cgagactcgg aacaaaacgt 32100
tcctgacaca agtgatggcc catttcgaag aaatgggcat gtgtgtagaa acagacatgg 32160
agctcttagt gtgcactttc tgcattaaat tcagccgcca cgtgaagaag cttcagctga 32220
ttgagggcag gcagcacaga tcaacatgga gccccaccat ggtagtcctg tgagtacca 32280
aaccacccat gtctgcagct cctctgtcag tccataagcc cgagtgcact gagcaccaga 32340
ggcatgctca ctgagcctgg ccgggggtgg ggggtggctaa aggatcaggg tctccagtga 32400
cttctaactg cccaatctga ccaccatgct ctgtctacct aagctcctct gcagtgcccg 32460
gctgtggggc agggcctgct tgcttctgga gaggccactg ggccctgccg tgtctgccac 32520
ctctcctcct acccttagaa tgaccgtcca tcttctctcc tggacgtgct cccaccttcc 32580
tgctgacctt agctaccccc aactcccca aggatcaggc agcccccta cccctgctcc 32640
tctctctggg cattcattct ctcgagaaa ttgctcctcc agctgcttca ggaacccttt 32700
ccatgacaac gacattggcc ctgagatctt ccccatcagc tctcaaaaag agtttcctat 32760
ttttccctgc aaaactgact tcataattat ttgtgaccgt ggtgccacca ttgccccacg 32820
cactcaacct gaaaccact ctctggctgt gcaagaatag cttcctcaa ccattctcca 32880
gccccggcag actgagaact tccccatccc ggttccccga cctctgtcgt ggtatcgatc 32940
acatgctatt ggtatgtgtc tatgtcctgc tttagatgat tcattccata agtatttatt 33000
aagcactgat tctatgccag gccctacaga tcacagatta aaaagcaca tacgtgcctt 33060
aaggagctca aaaaataggg gagaagacaa acattcattt aatgacaaca gagtgtgatg 33120
tctacaacag tagaggtatg gacaaggtag tgtgggtggc caaggaaggg agtgatcaca 33180
cgagtgggta ataaagattc tcagaggaag aaatgtttga tgtgggcctt catatttata 33240
tttttaaaac tttttctcac aataaaattc atgttcatta taggaaaaaa aaaaagatat 33300
gtaggctggg tgaagtagct cacacctgta attccagtag tttgggaggc tgaagcagga 33360
ggatcacttg aggcaggag tcgcgagtc agcctggcca acatggcaaa accccatctc 33420

taccaaannnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn 33480
nnnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn 33540
gaaatcgaac catattgtac attttatttt atagtcagtt ttatttttctt tatatatcaa 33600
ggctatcttc ttgtgagtggt gtgtggggta tttttttttt tttttgggtt gttgttgtct 33660
gagacggagt ctgcgtctgt cccctaggct ggagtgcagt ggtgcaatca cagctcactg 33720
cagcctggac cacccgagtt taagggatcc tcttacctca gccccgctag gagctgagac 33780
- - - - - tacaggagca tgccaacatg cagcgataat ttttgtatat tttttgtata gagatgagat 33840
ttcactgtgt tgaccaagct ggtctcaaac tcctgggctc aagcaagctg ctcaccttga 33900
cctcccaaag tgctgggatc acagatgtga gccaccatgc ccagcccttc atgtgtgtgt 33960
gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt agagagagac agagacagag 34020
acagacagag tcttgctctg tcaccaggct ggcagtcggt ggcacgatct ctgctcactg 34080
caacctctgc ctcccagggt caagcaattc tcatgcctca gcctccagag tagctgggat 34140
tacaggcacg caccaccaca cccagctaatt tttttgtcgt cttagtagaa acgggggtttc 34200
accatgttgg ccagggttgg cttgaactcc tgacctcaaa tgatccttct gcctcagcct 34260
cccaaagtgc tgggatcaca ggcagtgagc accatgccag ccctttatat atttttaagt 34320
agtctgatac aacaccattt tgaatgacca catgctattc catagggaaa gtgccatggc 34380
tgatttgacc attctcctgt tcttgcccat tttaagctgc ttctagttgt tcatagttat 34440
aaatgtgagg taggctttaa aggacctgga tacagggtact gcaagtagca gtggacagggt 34500
gggaaatctt caaagagttc caagcagcta gaggcagaga ccagatggtg gctggccggg 34560
ggatgggggc tgggataggc aaaggggaacc aagaacacca ggccagagag gagagtgttg 34620
gatgggcggg agcaagtgga gccttaagag aatgccgtgg gaaagtcaga ggcttcagcc 34680
acaagtggga ggagaaaatt tcaaggaaact gaatcagcta gacaaggcag agagaagaat 34740
aaggaagcta ctataaaaaa aacaagaaag ttcaggaaga aagggtggag gttggccaag 34800
ggctgtgtga aggaagagga gaaccaacca gagatattaa agaaatgaag atgacaggat 34860
gggagcttcc aggtgttttg catgtgatta agcattgtgc attttcaagt ataaattttt 34920
aatttttttt cagtcacctt gattaaggat ggcaaagtc aacggaaata aaaaatttaa 34980
aatgtatttt tcaagtttca caaaactaag taagtgtaaa agaaattcaa gtaagctttc 35040
atttatggct ttttttcgtg tgtgtgtgtg tgtgtgtgtg tgtgtgtgtg tgtgtgtgtg 35100
gatctcactg tgtctccag gaatagtga gtggcatgac catacctcac tgcaaccttg 35160
gcctcccagg ttcaagccat tctcctgcct cagcctcctg agtagctggg actacagggtg 35220
cacaccacca cattgcctaa ttttttttat tttttgtaga aacaggatct tactatgttg 35280
cccaggctgg tcttaaactc ctgggctcaa tcgatcctcc tgctctacc tctcaagta 35340
ctgggattac aggctagagc cactgcactc agctggcttt ttttatatgt ttgtagtact 35400
tgtactttca cagttattaa aacttaaaac tgctctagga cttttgggat actctttagt 35460
agcttttaat tctcacatac ccctctgcag cagggtgctat tgctgtcctc tttttgcagc 35520
ggaggagacg gagtgaggga tagagaagca gagccacat gcaggcagct ccttgccctc 35580
gcttcttgcc cccacatggc tctgcagact taggggaaaa gatgaattca ggttggggac 35640
ttgttgggac aaattagatc aaagaattac tgggatgtca aggtggggat atccaaccag 35700
aaaatagaaa actcagtcctg aaacttgga tagagatttg agtagttgaa gccttgagg 35760
tagatgagggt cactaaagta gtgtgtgaaa acagattaaa tgggtggaaa ttccatgagt 35820
cggagtctac tctaacaccc tcagacaaag ccgctcatct cttcccctca ggctgcaaat 35880
attctctcct agggcactcc ccacagccat ccctctcctg cagaccctct tggtatcctg 35940
ggaaggggat aggggtcccat gtgagccaac ctggacagca gtgcatatga tcatatacag 36000
tcttccatca caacatcctc aggccatctc tcccaggctc tgctactgcc tcccgcttc 36060

tttcctgggc actgggactc cagaatgtct gtgccaaagg aacacagggtg tgtctgcatac 36120
aaagggagga aggctgtcaa atttttttta aattaaaatt gtcaaatttt tttaaaaaat 36180
ttttttctta tctgcagtgc tcagcaccca ggccaggccc tatgctgagc agtgcagatt 36240
taaaaaaaaa aaaaaaaaga caaatgtctg tccctgccct caaggaactc ccagactgag 36300
gcagaaacag acacacaagg tgaacacttc agtgtgctat ggtaagggct gtagaatgag 36360
gagccacatg gaggagaggg acctagccct ggggtgacggg cagacaggca gggagggctg 36420
- gtcagtactg gagatggcac taccgcgtgt ggcctgggtg tcagggggac aaagcccaac 36480
tgtgttgtgc agggctgggc acctcaaacc cctgccagac acatcacatc tctcctgtcc 36540
ttctctctcc cctcaggtt caggtgggtc ccagtcacag atgcctattg gcagattctc 36600
ttctccgtcc tcaaggtcac cagaaacctg aaggagctgg acctaatggt aaactcgctg 36660
agccactctg cagtgaagag tctttgtaag accctgagac gccctcgctg cctcctggag 36720
acctgcggt gagtctggcc tgggttctgt tctgaagcag ggatggggaa gagatccaag 36780
gcagaagctg agtctgggct gagggatttg tctttgtatt tatcaaatac tcgttgaggc 36840
cttctctggc cgggatgact ttagtaaaca aacacagata ggattttttg ctcataaaaa 36900
aaaaaaattc cttcatgaag tgaggtttga gggaggtctg aagaatacag aggatttaac 36960
taagcaaagc aggaaggaaa aagttccagg aaaagagaat agcatgtaca aaggctctgt 37020
ggagaaggca ggaggaggca gtcaagaaac tgaaagcagg ccagtgtggc tggagggcag 37080
atagcaaagc gttgagataa ggctacagat accaacagga agtagactat gccaggcttg 37140
tgcaccatgt tggatttggg tcttttcctg atggtgtgga attttaagca gaaggttgac 37200
aagatcagta cattttcaaa atagaaactg gctgcaacat gaaaaatgga ttggaagagt 37260
gcaaaaagtag aggctgggaa accaattagt aagaaaattg cagtagtccc tgcaaagatg 37320
gtaatatgtt ggactaagga aaattatagt acttttaaat gtcacagata gtcatagctt 37380
ggactatggt attggcaatg gatatggaac aaagtggcta gatgtaagag agctataaaa 37440
gtaaaaatca ctgggctcag taatggattg aatttaggaa aaaaaggaag aggaagatat 37500
caaggatgat tttaggtttc tgaccaaaagc aactcatggg atagtggcat cttcatcaag 37560
atggggaata ctaaaagaaa agtgattggg ggggtggaatg tcatgagtgt gatctcgtgc 37620
ttgtctggtt caagatcctt tcaaggatc caactggacc tgccaaatag gtttcaaata 37680
aagctctatc caaagataag atcgccccat aaaacaaatc tcaacaaatc tgcaaggact 37740
gaaatcatatc aaagtatat ctctgaccat gataaaatga aattagaaat caacaataga 37800
aggaaagtgt aggagttcat aaatacactg aaatttaaaa acacactcct aaataaccaa 37860
gggtcaaaga agaaatcaca aaggaaatta gaaaacactt tgagagggat gaaaacaaaa 37920
tcacaacatg ccaaaatgta ttggatgcag ctaatgcagt gcttaaaggg aagtttatag 37980
ttataaatac ttctatttaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa gaaagataga 38040
gccagacatg atggcccatg cctgtaatcc caaatctttg gaaggccaag gcaggacaat 38100
tgccttaggc caggagtgtg agaccagcct gggcaacata gagagactct gtctctacaa 38160
aaacataaaa taaaaaatta gttgagaatg atgatgtgtg cctgttgtca taactactta 38220
ggaggctgag acaggagtct cacttgagcc caggagtcca aactgcagt gagctgtgat 38280
tatgccattg cacttcaagc tgggcaacag agacagacct tatctctaaa aaaattactc 38340
aaaatttttt taattaatga aaaaaagaaa agataccact acatacttat cagaatggcc 38400
aaaatccaaa aactgacaaa caccaaatgc tgacgaggat gtggaaaaac aggaactctc 38460
attcattgtt ggtgggaatg caaaatgaga cagccctttg gaatacagtc tagcagtttt 38520
ctacaaaaca aaatatactt ttaccatagg atccagcaat cgcatctcct gatatttacc 38580
aaaatgagtt gaatacctct gtccacacaa aaacctgcac atgaaatgtt atggcagctt 38640
tgttcatcat tgccaaaact tggaagcaag ctgcccttca gaaagtgaat ggactcataa 38700

atttgtgtac aaacagacaa tggactatta ttcaatgcta aaaagaaata agctatcaag 38760
ctacacaaaag atatggagaa actttaaatg catgttacta aaagaagcca atctaaaaag 38820
gctacatgct gtatgcttcc aactatatga cattctggaa gaggcacaaa caaggagata 38880
gtaaaaaaga ttagtggttt ccagggcttg ggggaaggga ggaattaata gagcacagta 38940
gagttttagg gcagtgaac tattctatat actgtaatcg ttcatacata ttattttaca 39000
gcaatcaaaa tccatagaat gtacaccacc aagagtgacc cctaagttaa actatggact 39060
- - ttgggtgatg atgtgtccat gtcagtttat caattgtaac aaatgtcacc acaatatact 39120
agtgtgttac agcatgtcag cagtgggaaa gattgtatga gggatgtggg gacagggagt 39180
atatgggaac tcgctgtact ttttgctcaa ttttactgtg aacctaaaac tactctaaaa 39240
aataaagtct attgaagaag aagaaaaaga agaagcagag aaatctcaaa taagtaacct 39300
aaacttacac cttaagaatt tgttttcctt aggtctttca tgttagtaaa gaaatTTTTT 39360
taaaaagcaa acaaaaccaa aagcaagcag ggggaagaa ataataaaga ctagagtaga 39420
gataaatgaa acagagaata gaaaacaata cagaaaacca atgaaactaa agttagttc 39480
tttaaaaata ccaacaaaat ttgacacctt ttagctagac taactaaaat gtaagaagat 39540
tcagattact aaaatcagaa ataaaagatg gggatcaca attgaactta cagaaataaa 39600
aggattataa gtgaatatta tgaaatattg taagccaaca aattagataa cccagatgaa 39660
atgagccaac ttccagaaag acacgaatac ctaactgac ttaataagaa atacaaaatc 39720
ttaatagact tataacaaat agagatattg aattagtaag ttaaaaactt tctatgaaac 39780
aaagcccagg cccagatggc tttactagtg aattctacca aatatttaa gaagaattaa 39840
cacttatatt ttcaaactct tccaaaaata gcagaaaaga gaacacgtgc caatttgttc 39900
tatgagacca atattaccct gataccaaaa ttagactaag ataaccaaa gcatcacaag 39960
agaaaaaaaa aaatctgcag gccaacatcc tttatgaata tatatgcaa attacataac 40020
aaaatactgg caacatataa aaaggattgt agaccatgac caaatgggat ttatcccaag 40080
aatgcaaatt gggtttaacc taggataatt gatcaatgta atgcaagatg ttaatagaat 40140
aaagaacaca aaccaatgat tatctcaaag acacaaaaaa agcatttgac aaaccctcaa 40200
caccttttca cattggaaac actcagcaaa ctagaaataa aagggaactt tatcaacctg 40260
ataaagttgt taccagtaaa aaaaccaca gctaacatta tacttaatgg tggatgactg 40320
agtgttttcc ccctaagatt aggaataaga caaagatgtc tgttcttgcc atttctattc 40380
aacactgtac tcaaggttcc atccagagta attaagcaag aaaatgaaat taacagcttc 40440
cagattgaaa agaaagtaat taaactatta tttgcagggtg acatgacatt gtatgtagaa 40500
aatcctaagg aatctacaaa tattaataatt agggccagggt gtgggtggctc atgccctgta 40560
atcccagcac tttgggaggc tgaggtgggt ggattgcttg agttccggag ttcaagacca 40620
gccagggcaa cacggcaaaa ccctgtctct accaaaaacta caaaatatta gccgggcgtg 40680
gtggcacacg cccacagtcc cagctactca ggaggctgag gtggggagaat cgcttcagcc 40740
tggtaggcag aggtagcagt gagctgagat tgtgccactg cactccaacc tgggtgacaa 40800
agggagaccc tgttgaaaaa gaaaaaaaaa aaaaactaat gatctcagca aggtttcagg 40860
aaacaagatc aatatacaaa aattagttgt gctgctatac actagcaatg aacaatccaa 40920
aaattaaatt aggaaaacaa taaatttaac aaaagaaaac ttgtatacag agaactacaa 40980
aaaatgggtg aaagaaatta tgtaagacct aaacaaatga aaagatgtcc catgttcata 41040
gattggaaga cttgatatta ttaaaatgac aatacccccc aaactgatct atagattcaa 41100
cacaatccct agcagaatcc cagctgccat ttttgcagaa atggacaagc tgattctaaa 41160
attcacgggc aaaaataaga ttgcatgtca agcctgggga acacccccac cccagtattt 41220
aatggccaaa gaagagccaa caacaagcc tgagaaggag gggccacata gatgaaaggg 41280
acaccaggag agagaggtgt catggaaccc aacagagcag aggggtctcaa ggaggtcagc 41340

agggactact gctgctggga ggtcaagata aggactgaaa tttgtccatt ggattagtga 41400
taggaaagtc atgaataacc tcagcagaag taccttatgt ggcatgaaga ggcgagaatg 41460
cagactggag tgcattaaag agggagaagg aggtaaaaaa tgagaccaca aatatacttt 41520
cttcaaagac tttgatagtg aaaaggagga aagcactaaa gcagagggga tgggtgggctg 41580
agtaaagtgt tgtgtctgtc catctgctta cttgcattta agaaggaaaa gatctcagtt 41640
tgagaatcag tgaggaggag tgataaaaaga cacaagaagg agaaggagtc attgatggct 41700
- ctctatcctc agaggggagga gggaggagaa agattggcct tggaagaggg aggaaatgtc 41760
tcctttactg taacaggagg ggagatgagg acagggaaga gagaggtagg aacatagggt 41820
tcactctgag aagctgagag gttcccatct gatggcttca tttttctctg agaaatagga 41880
attgagttgt ttgctaggag tgagtgtgag ggttgagggtg ttggatgttt ggaaaaggca 41940
agatcttcaa atggccatag tagagtgtga gatctctgcc agtcaggcat tgctgtggcc 42000
catgtgaggg tcgtgggtcat gattcaagat ggcagccacc taccctgttg cacaggtggg 42060
agtttgggtg gagagtggaa agatagcaga attcagggtt agccagagga atgtgatgga 42120
aggtcagagg gtaagaaatt caggatactg ccaatgaagg atcatggaat ctaacctaca 42180
ttccaaggaa attgaagaaa agaaagtgat aagagattga aagaaaggag attgtaagaa 42240
aggaaagcaa tcaagagatt gttcattaaa aaggagttac agtgggagaa gttgagcagg 42300
cagagtaagg aggcaagccc agcctcgtgc tgtgactttc tgtatcctta tgaggctgct 42360
ctaccactc ctaagacctt tccaaggaga accaccagag tccagtaaaa atgcttttga 42420
gcaggactaa ggaatcctgg ttctacctca aacttcacac cccagtagga agacaccaat 42480
cttcaatgta ctctttttac attggcataa aatttcacta tctcaaacc aaacaactcc 42540
atatctgtta attccttggg ccttccaaaa aacaccctgc aaaaatggca gagcaggga 42600
aactatttcc attttccata tataaagaaa tgggctgggg aaggacattc cctggagcca 42660
gacacacaca ggttcaaadc ttgcctctaa cggttacaga ttgaaaacta tgggtaggtt 42720
tctttagcaa gtttcagttt actcattaat aacatggatt caccatgtct gttgcacaag 42780
gtggctgcaa agtcaaagga gatcatgtat gctatgtact tagggtcattg tgtgctatgt 42840
atttaggggt atgtatgctg tgtacttagg acatgtatgc tatgtactta gggtcattga 42900
tgctatgtat ttaggggtcat gtatgctatg tacttaggac catgtatgct atgtacttag 42960
gttcatgtat gatgtgtatt taggggtcatg tatgctatgt atttagtgcc taagttgtcc 43020
taagaggctc agagaaaatta acgacttgcc aaattcacat agttagcagt gggagagctg 43080
gacacaactc agtgagggca agaccagca ccaacacctt cctcctctgt atcaggtaag 43140
ccggggcctg attaatctct gctcactggg ggtagacca taaaaagaaa gaaatctgg 43200
atcaggcaaa tgtgaatatt tcccacaata aaaacatctc catatggaag agtgtacagc 43260
cttacacacg cttggatgcc agactacca agaccgcaa gcaaagtcct aactattgta 43320
tttctctttt tttatttacc tacatctcct catttcctcc cctcctcgc ccctgataac 43380
caccatttat tctttctttg tatgtatttt gcttttttaa tttttcacc acaagtgaga 43440
ccatgtagtg tttttctttc tatgtctggc ttatttcact tttggattta tcttgaaatg 43500
cattgaataa gctggtgtca ggaattctgg ggttttgtca ctaatggcct gtaaaattga 43560
gcacattacg cagacaaagg agaaattggc gggagtgggg ttggagagct caaaaaagga 43620
atgccggaaa gagcaagggtc aggggagaga ccagacagag ggtgtggaat cgaagacaca 43680
tgagggtgga cccttggcct cctctggaac agaagagaaa ggactatgtg atgacacagg 43740
cagctgagga cggagagggtg gagggacatt gagggttttg gtttccacag cagcagcatc 43800
ctttaagcac taaccttctg ccaggggctt ccctaagaac atggcataca tgatctcctt 43860
ggatcttgca gccagctggt acaatagaca tggcagatcc atgatactga tgagtgaact 43920
gaaacttggg aaagacatct gccatagtct tcaacttgta actgacagag gcaagatttg 43980

aatccatctc tgtctagccc caaagcctgt gcccttcacc tgcccactgg ggtcactgct 44040
gcccgaaggtc agatggcctc agcctcctca cagaggtcca ataccaagtg tcttcactgg 44100
ggcttggggag tgggtaggat tggaggaggg aagtccacac agcacagctt gtaatggtaa 44160
gttgttttaa aataaataaa gcccgaagag aggcacattt gtttatgctg agatgagtcc 44220
tgggggcagg aacatgccta gtgaaaatga gcttgtcaac aagcaggaaa tcagataagt 44280
ttgttgggta gccccccccc cccaggggaga gagtgggctg nnnnnnnnnn nnnnnnnnnn 44340
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 44400
nnnnnnnnnn nnnnnnnnnn ggagtgtctg acggcagcaa cgagacgcag tagagagcgg 44460
cgagaagcga gagagtcaga cgagcagtga agtctgtgat gacgatagag cacgcagtac 44520
aacagcgcag tcgcgcagag cggacagaga gtgacatcta agtggataga cgggtgtacta 44580
gagacgagct gactagacga gagagcatga gtaatcatcg cagacagaca ggacgaagta 44640
gagtaggtct ggagaagcac aacgcgaata ggcgtagcaa gacgagagcg atgatatatg 44700
cgcagaggag tgagatctgg acagcagaac ggagatagag agcgacgagc aagagagtga 44760
acgcactagc ggaacacgat acgagtacga aaagaaggag cggacgccac agaaggagca 44820
cgagtacgca gacgagctag tgtcgcgacg ggtgagggtca aagacatctg aagtcaagtg 44880
tatacgtagt atagcgcaag gcgacgagtc gaggagcgaa gtctgacgtc gaagacagcg 44940
gcgtagagca catatggcga cgcgatagtg agagagttag atcacgcgag aagaacgtca 45000
cgcgtgcagt gagaacgcaa gagtaagagt aacgaatgtg cacgagagag aagtgcгааag 45060
caaaaacgag tagtcgtgca gaacgagaga tacgacgacg gttcctaggg agcggagaaa 45120
tggacgcatg gcgatgcaat agcgagggta cgtagagacg acgacaacga tagtacgtgc 45180
atgagtgcg gcacatgcga gccgagctca tgtaaccacg cacgatgcgg gagttagact 45240
cataggcgag taaaaganga gaggagagtg cggagtagca gatacgagga gaggagcgat 45300
cagagctata attgagattg cgcaatagaa gaagaggagg agagatagac gtgttagaca 45360
gtagtagaga gacataggga ggggatttat ttccctagag agaaagagag aaggaggggc 45420
tatacaccga gagaacaaaa ttggattcaa ggttgagaga gaagacgtgt aattcggagt 45480
agataccacg cagaaccaag tgatttgttg gataaaagcg gaaaaaggga tgggacaaaac 45540
cctcaacacc ttttcacatt ggaaacactc agcaaactag aaataaaagg gaactttatc 45600
aacctgataa agttgttacc agtaaaaaaa cccacagcta acattatact taatgggtgga 45660
tgactgagtg ctttccccct aagattagga ataagacaaa gatgtctgtt cttgccattt 45720
ctattcaaca ctgtactcaa ggttccatcc agagtaatta agcaagaaaa tgaaattaac 45780
agcttccaga ttgaaaagaa agtaattaaa ctattatttg cagggtgacat gacattgtat 45840
gtagaaaatc ctaaggaatc tacaaatatt aaaattaggg ccagggtgtgg tggctcatgc 45900
cctgtaatcc cagcactttg ggaggctgag gtgggtggat tgcttgagtt ccggagttca 45960
agaccagcca gggcaacacg gcaaaaccct gtctctacca aaactacaaa atattagccg 46020
ggcgtggtgg cacacgcccc cagtcccagc tactcaggag gctgaggtgg gagaatcgct 46080
tcagcctggg aggcagaggg agcagtgagc tgagattgta ccactgcact ccaacctggg 46140
tgacaaaggg agaccctgtt gaaaaagaaa aaaaaaaaaa actaatgatt tcagcaaggt 46200
ttcaggaaac aagatcaata tacaaaaatt agttgtgctg ctatacacta gcaatgaaca 46260
atccaaaaat taaattagga aaacaataaa tttaacaaaa gaaaacttgt atacagagaa 46320
ctacaaaaaa tggttgaaag aaattatgta agacctaaac aaatgaaaag atgtcccatg 46380
ttcatagatt ggaagacttg atattattaa aatgacaata cccccaaaac tgatctatag 46440
attcaacaca atccctagca gaatcccagc tgccattttt gcagaaatgg acaagctgat 46500
tctaaaattc acggggcaaaa ataagattgc atgtcaagcc tgggggaacac cccaccccca 46560
gtatttaatg gccaaagaag agccaacaaa caagcctgag aaggagggggc cacatagatg 46620

aaagggacac caggagagag aggtgtcatg gaacccaaca gagcagaggg tctcaaggag 46680
gtcagcaggg actactgctg ctgggaggtc aagataagga ctgaaatttg tccattggat 46740
tagtgatagg aaagtcatag ataacctcag cagaagtacc ttatgtggca tgaagaggtg 46800
agaatgcaga ctggagtga ttaaagaggg agaaggaggt aaaaaatgag accacaaata 46860
tactttcttc aaagactttg atagtgaata ggaggaaagc actaaagcag aggggatggt 46920
gggctgagta aatgtgtgtg tctgtccatc tgcttacttg catttaagaa ggaaaagatc 46980
tcagtttgag aatcagtgag gaggagtgat aaaagacaca agaaggagaa ggagtcattg 47040
atggctctct atcctcagag ggaggagga ggagaaagat tggccttga agaggagga 47100
aatgtctcct ttactgtaac aggaggggag atgaggacag ggaagagaga ggtaggaaca 47160
taggtttcac tctgagaagc tgagaggttc ccatctgatg gcttcatttt tctctgagaa 47220
ataggaattg agttgtttgc taggagtga tgtgaggggt gaggtgttg atgtttgaa 47280
aaggcaaat cttcaaatgg ccatagtaga gtgtgagatc tctgccagtc aggcattgct 47340
gtggcccatg tgagggtcgt ggtcatgatt caagatggca gccacctacc ctgttgaca 47400
ggtgggagtt tgggtggaga gtggaaagat agcagaattc agggtagacc agaggaatgt 47460
gatggaaggt cagagggtaa gaaattcagg atactgccaa tgaaggatca tggaaatctaa 47520
cctacattcc aaggaaattg aagaaaagaa agtgataaga gattgaaaga aaggagattg 47580
taagaaagga aagcaatcaa gagattgttc attaaagagg agttacagtg ggagaagtgt 47640
agcaggcaga gtaaaggagg caagcccagc ctctgtctgt gactttctgt atccttatga 47700
ggctgctcta cccactccta agacctatcc aaggagaacc accagagtcc agtaaaaatg 47760
cttttgagca ggactaagga atcctgggtc tacctcaaac ttcacacccc agtaggaaga 47820
caccaatctt caatgtactc tttttacatt ggcataaaat ttcactatct caaacccaaa 47880
caactccata tctgttaatt ccttgggcct tccaaaaaac accctgcaaa aatggcagag 47940
cagggacaac tatttccatt ttccatatat aaagaaatgg gctggggaag gacattccct 48000
ggagccagac acacacaggt tcaaactctg cctctaacgg ttacagattg aaaactatgg 48060
gtaggtttct ttagcaagtt tcagtttact cattaataac atggattcac catgtctgtt 48120
gcacaaggtg gctgcaaagt caaaggagat catgtatgct atgtacttag ggtcatgtgt 48180
gctatgtatt tagggttatg tatgctgtgt acttaggaca tgtatgctat gtacttaggg 48240
tcatgtatgc tatgtattta gggcatgta tgctatgtac ttaggacctat gtatgctatg 48300
tacttaggtt catgtatgat gtgtatttag ggtcatgtat gctatgtatt tagtgccata 48360
gttgccttaa gaggtcaga gaaattaacg acttgccaaa ttcacatagt tagcagtggg 48420
agagctggac acaactcagt gagggcaaga ccagcacca acacctacct cctctgtatc 48480
aggtaagccg gggcctgatt aattctggct cactgggggt agcaccataa aaagaaagaa 48540
aatctggatc aggcaaatgt gaatatttcc cacaataaaa acatctccat atggaagagt 48600
gtacagcctt acacacgctt ggatgccaga ctaccaaga cccgcaagca aagtcctaac 48660
tattgtattt ctcttttttt atttacctac atctcctcat tctctcccc tctctgcccc 48720
tgataaccac catttattct ttctttgtat gtattttgct tttttaatat ttcaccaca 48780
agtgaacca tgtagtgtt ttctttctat gtctggctta tttcactttt ggatttatct 48840
tgaaatgcat tgaataagct ggtgtcagga attctgggtt tttgtcacta atggcctgta 48900
aaattgagca cattacgcag acaaaggaga aattggcggg agtggggttg gagagctcaa 48960
aaaaggaatg ccggaagag caaggtcagg ggagagacca gacagaggtt gtggaatcga 49020
agacacatga ggggtgaccc ttggcctcct ctggaacaga agagaaagga ctatgtgatg 49080
acacaggcag ctgaggacgg agaggtggag ggacattgag ggttttggtt tccacagcag 49140
cagcatcctt taagcactaa cttctgcca ggggttccc taagaacatg gcatacatga 49200
tctccttgga tcttgacagc agctggtaca atagacatgg cagatccatg atactgatga 49260

gtgaactgaa acttggtaaa gacatctgcc atagtcttca acttgtaact gacagaggca 49320
agatttgaat ccatctctgt ctagccccaag agcctgtgcc cttcacctgc ccactggggg 49380
cactgctgcc caaggtcaga tggcctcagc ctcttcacag aggtccaata ccaagtgtct 49440
tcactggggc ttgggagtgg gtaggattgg aggaggggag tccacacagc acagcttgta 49500
atggtaagtt gtttaaaaat aaataaagcc ccaagagagg cacatttggt tatgctgaga 49560
tgagtcttgg gggcaggaac atgcctagtg aaaatgagct tgtcaacaag caggaaatca 49620
gataagccag gtgggtagaa ccgaccaccc agggagagag tgggctggca ggagacagcc 49680
atctgggaag taggcctca gctgtgagat gccagccaca ggcagtgagc acagagccac 49740
atctgccagc tgcgtctgga ctttcttggg ccacactctg cagctcaggg ttggaagcag 49800
agaaggaaga cagtgattgt ccaggggagac gttaccgagg gcctgggtgca ctctaaaatc 49860
caagtgtctt acaatgccac atactgagtc gtgtgtgtgt gtctgtgtgt gtctgtgtgt 49920
gtgtctgtgt ctgtgtctgt gtgtgtatgt gtgtgtgtgt ctgtgtgtct gtgtgtgtgt 49980
gtctgtgtgt gtgtctgtat gtgtgtctgt gtgtcaaagt gtgtgtctct gtgtatgtct 50040
gtgtatgtgt gtgtgtatcc gtgtgtgtct gtgtgtgggt gtctgtgtct gtgtgggtgt 50100
ctgtgtgtgt gtgtgtgtgt ctgtgtgtct gtgtgtaaga gagacagggg gaattggggg 50160
ttcgctctgt cacctaagct ggagtgcagt ggtgtgatca tgactcaatg cagcctcaaa 50220
ctctgggata cgagccatcc tcccacctcg gcctccaaa gtgtggggat tacaggcagg 50280
agtcaccaca ccttgccagg atgtgtgttt aatgcagctg accttaaatt cctggctgga 50340
taggaaagtc cagaaggaga gccagagaaa acaaagggg aaaagtaggt cttatgagag 50400
caaggaaaga cagagatttt tggagaggat ggagagtggg atttgagtcc aaccagaagg 50460
ataaccaggc cccaccttca gcctccttcc ccctcacaca tagccgctcc cataatcata 50520
tcagatggcc gctcccacag tgtctgcca ccctgcatct gcagctccag acccaaacc 50580
aacaccctcc tctgaggtgt cccagaggct cctgaaattc agcctattct tacctagact 50640
atcctcccta actaaaaaca aactgttctt cctctcagaa ccaactgcat ctttttcagg 50700
acccaatata aaatgaaaat gcagtgtctt agctcaaaag tcaggatgaa agtgctgtta 50760
aagggtactac gatacagagc tttttctttt tccatagtt tctctctcaa cctatcacag 50820
tgtattttat ttgctattta acaatgcatt cccttgggca ctgggacact agcagtgttt 50880
gtccagacc tcaaaggtgc tccgaggcct ctccacagct cagcatgtgc acatgggtgca 50940
ccagatgcag ggtgcctctc ccacaagtca ccagatccag gcacctgacc ccagagtggg 51000
taaaatgtca agccagacat gtctccttcc catgggccac caccacagcc taaagcagat 51060
gggagaccct ccagggtatt gccaggatgc attaggtatc tagatcagtg gtgggggaga 51120
tttgcccca ccaaatcacc aaatgtgcca tgatgtgtgc agcccaaact gagaaaggct 51180
gccacctgcc ctacccaag atgccccacc ccaacctacc catgctgtat ccaggcccc 51240
accagagata aagcgtggca ataactactg ggctgaggtt gagtgggggc ccacaacac 51300
tcaaatgcag gatgaccaag aactatttcc cctagaggga gggaggaggg tggcaggaga 51360
tggcatcacc tatgagctga ggctccatgg tccatcaga cttcacctac aaaacacaaa 51420
tttaaagaca aaattattaa gaaattcaag atggccacca cagagcatta acccccca 51480
tctagaaggg tccttctcac acccctgcca gttccgggtc cttctgagca cggggccctg 51540
tgcaaccacc ctggttgtac accaatgaaa ctgacactct tctaactct gctttctcag 51600
taagtgcag cagcttctac tctgaatcca accttgaggc ctccctggac tccactgagt 51660
gccacagggt ctgctccaaa catctcccga agtcgctgct ctgacagttg ctcatcctcc 51720
cccacagacc ccttgctctc tgcctttccc caccagcca cctccacttc ctcagggatc 51780
ttgcattttt ttttttttta tttgagatgg agtcctgtct tgtaaccag gctggagtgc 51840
agtggcatga tctcagctca ctacaacct cctcagggat ctttctaaag caatgcagag 51900

accacatcac tgctggcctc aggaactttc atgggctcat cactgccaca gggaaatagg 51960
tctaaacatc ttataatgac atccaagacc tactactatc ttgatatttt ctagctttac 52020
cctcagactt tctctctacc tgggtagcct ttacgctaac atcactatac taaccgcgtg 52080
ctgtgatttc acatctgccc taccagccac gcgtgcccct gcctccgccc tcacctcagt 52140
gaatcactca ttttaagtffc actgtttcca ccctgccttg gcaatcactc attcctctgc 52200
cttcagctgc acctgacttg cccctctttt gaggtctattt cattcattta tttactacat 52260
- acttactaag cacctactgt atgctagacc ctgctctggg cactgggata tgactagtaa 52320
tgaaaatggg gctgggcacg gtggctcacg cctgtaatcc taacactttg ggaggctgag 52380
gtgggtggat cacctgaggt caggggttga agaccagcct ggccaacatg gcgaaacccc 52440
gtctctacta aaaatacaaa aattagccgg gcatggtggc aggacactgt aatcccagct 52500
actcaggagg ctgaggcagg agaatcactt gaaccagggg cgcgagggtt gcagtgagcc 52560
gagatcacgc cactgcactc cagcctgggt gaaagagcga gactccatct cacagaaaga 52620
aggaagggag ggagggaagg agggaggagg gaaggagaga gaaagaaagg agggaggagg 52680
ggaggaagga aggagaaaga ggaaaggaag gaaggaagga aggagaggga gggaggagg 52740
gagggaaatg ggcaaaattc cttcctcaag gagcttacat tctagtggg agggaggaca 52800
agaagccaaa taagtaagta aaatatattg tgagtacat gagctataga gaaaagtaaa 52860
gcagaaagga gcagggagtc tggggatggg tgtgcaattt taagtggaga gacgaggcaa 52920
gatgtacca aagcgacttc cttctgagca aagacctgac gcaagtggag gagcacccca 52980
tgagggtgtca gcaccagaag attgttccag gcagaagaag cagcagaagc agcaggtgtca 53040
gagaccttag gtggaactgt gcctggggtg aggaaggaag agagagaagg gcagtgacta 53100
tggacctaaa agagattaga gatgaggaca gagatgatga ggatccaagt ccccagagcc 53160
ctgtagacca ggaaaaggac cgtgaattgt attctgagta atgtgggaaa acattggagg 53220
gttttaataca aaaaggatca aaaaactaac tattatgtgt ttctatgtct atccccaagt 53280
accatgtgca tttctggggc ctgggagggt tttctagacc tctgcctggc ccacaggcct 53340
ggtgcatagt aggtgattaa tgggtgctta tgggtgtctg ttgaatcaac aggtgagtaa 53400
cctgaagacc atgggtgtgt gtcttccaca ggttggctgg ctgtggcctc acagctgagg 53460
actgcaagga ccttgccctt gggtgagag ccaaccagac cctgaccgag ctggacctga 53520
gcttcaatgt gctcacggat gctggagcca aacacctttg ccagagactg agacagccga 53580
gctgcaagct acagcgactg cagtaattgt tcttgggtgg cagggggagg tggagggaac 53640
tgctgccac catgaggcag gcagagggtg agagcagaga gaaggtgaga cctgctttgt 53700
gggagtggga ggagcctaca ggatctcagc caggcagtag aggctcagga ggaagctcat 53760
ccaccttg acagaggagg ggggcctcca ggctccaaat acagcaagag aagccaagtc 53820
gagtcaagg acgtgaatgc aaggtgggga cagggggcag aatttgtggc cattttcaca 53880
gactaccaca gaggatgatg ataatcgtgc ccacttcata gagctatgag gattgcagca 53940
gtgtttttct attcttctcc tgttcccacg agctgtgatc tgcttagtaa caggctctct 54000
tacttggcat ggggttctgc catggagagc tgaaatcact ggtgtccact tagttcgatt 54060
tactatctca tccgagggga cagagccatc cccccgcca ccatgtagaa acaagtgagg 54120
cgccctggct catgcctgtc atcccagcac tttgggaggc cgaggcaggc agatcacttg 54180
aggtcaggag ttccagacca gcctagccaa catggtgaaa ccttgtctct actaaaacta 54240
caciaagtag ccaggcgtag tgggtggcac ctgtaatccc agctactcag ggagcctgag 54300
gcaggagaat tgcttgaaca cagaaggtag gcattgcagt gagctgaaat cacctcatta 54360
cactccagcc tgggcaacag agcgagactc cttcttaaaa aagaaaagaa aagaaacaag 54420
agtgcatagt tacctctccc tggctcctgt gggcctcctc ccttgatgca caaagttata 54480
cacaccctc tgtgcacccg ctcagggggc tgccttcagg gtcttctttt gtttctgccc 54540

aagccctgaa atataccttgt ttacaccttg cgagatcttt gttcacacat cacacgtccc 54600
ttccttcttc ccaaggccaa acctctgccc ttccaaggc tattgcctgc ttccccattc 54660
agtaatcctg atcaagagtt gatgggaagg gggcatggga aggggagaca acgaggatcc 54720
tctcctagta tcaggggtcg gcgatccctg gtcggctagg aagtcggtaa cacttgtcag 54780
atttaatcct cgctacatct acagaagaca agattggatc tcggagagat tcattatattt 54840
cccaaggcca catagccagg aagtagctgc accaggattt gaagccaggc ctgacctcaa 54900
- agcctgggtt tccattctcc ctgttccctc tcttagcgaa ggcccctgga atgctttgtg 54960
acatttaca gcttggaactg cagctgggtc tgagcagacc cagctgggag agccaacagt 55020
tctagaagca gggctgagac cccaagagca gaggatcccc agacaggaga acccccagag 55080
agagcctaca tatatacaac atacagcagg tacatagccc ttttctggca taaatggtag 55140
cacagcacia actctgccct gcactttgct ttatcagtta aaatataatc tggagatggg 55200
cccacatccg tacgtacaaa gtcacatcat tctttttaat cacagcatgg aatttcacta 55260
catggactta ccatcatgtt tttatccatc gcctattatg agcagccaga ttgtctccag 55320
tgtttgctgt aaacagggca gcagttaaca tccccagtg cgtcctgaga cccagcatat 55380
tatctgtagc ttaacttccg aaaaatggaa ctgctgggaa aacgatatgt tgctaatttt 55440
gccctctaaa aaggccctac cggccgggca cggtggtc caacctgtaat cccagtactt 55500
tgggaggcct gggacacaga gtgagaactc gtctcaaaag aaaaaagaaa aagagaaaac 55560
agatagacc aggtgtacaa gtgggacatt gagtaagtta ctcatcaatg tggacagagt 55620
gaggggactg gatcagtgtg aatcacacag gattgagaaa gggtaggtgc tggcatcctg 55680
aggggttccg tggctgcaag aggaaagtga aaatctctca ggttaccgca agccaggaaa 55740
gtttgtatct tctctgcatg tcatcccaga ccctcaaaag gccacagatg ctgagaagga 55800
agatcagacc ctagttaccc tgaagagcga gcccttagga caatgacctg ggctggcgtg 55860
tatctttcct gcaggctggg cagctgtggc ctcacgtctg actgctgcca ggacctggcc 55920
tctgtgctta gtgccagccc cagcctgaag gagctagacc tgcagcagaa caacctggat 55980
gacgttggcg tgcgactgct ctgtgagggg ctcaggcatc ctgcctgcaa actcatagc 56040
ctggggtaag gccctgtggg tcccttctgg gcagagggaa gaggggtggg ggggtatcgg 56100
acaggggatg gaaaaaggac tgataaatgc atagccaacc caagtttctt accagctcta 56160
ccacttacac tgtgtgactt ggacaagtgc ctgaattctc tgggactctg tttcctcatc 56220
tgtggaatgg gagtatcata cccacttcat ggattgtaat gaaataaaat gtatataaaa 56280
acaaggacag gcagggcgtg gtggctcacg cctgtaatcc cagcactttg ggaggccgag 56340
gcgggtggat cacttgaggt caggagttag agaccagcct ggccaacatg ctgaaacccc 56400
atctctacta aaaatataaa aactagctgg gcattggtgt gtgcacctgt aatcccagct 56460
acttgacagg agaatcactt gagcctggga ggcagaggtt gcagtgaact tagatcacag 56520
cactgcactc catcctgggc aacagagtga gactcagtct caaaaattaa ttaattaatt 56580
aaacaaataa aataaaaaca aggacagtgc tgggaagaga gtcgggcatg atcaaatgat 56640
aactattact gaggtgcat gctctagggg acgctcaggt tcccctcact ccagggcagc 56700
gcttcattca ttcatttact cattcattca ttcactgagt gcctcccgtg tgtaagcacc 56760
agaccaggcc ttggggtaca atagtacca aacagacatg ggccctgccc tactgaagct 56820
tctactctag tggggaagag acggacactg gtcacctgta aatgcacaag tctatattta 56880
tgagctctgt ggagtgaag gaaagtacag ggtattatga gaatgtaata ttgaggagg 56940
atgggatttg atcaaagggc caggaggac ttcctgaga cagtgcgtc aggtgaggt 57000
ctgaaggagg aataggtacc caggccaagt tggggagagt attctaggcc tagggatggg 57060
gtggggaaag gccagaaca aagaggcact tgagccccg agaactgaag gacctgagt 57120
ggagtgaagg cccagccctc atttcccatc ccgtaggccc cagagattct tgccttccc 57180

cgaggagcca cccccacact atctctgggc cacttctgct cccctccacc tccctgggag 57240
caagcccatg agtggcttct gtcttgacac ttaccacagg ctctgccag gggccctgcc 57300
acatctcagg gagcagacag gggctccaaa cccccacatc cagagccttc tcagaggggg 57360
tccgggaagc ctgggcctcg ggctttcttc agccaggcct cccaaacctc aagaagtggc 57420
caaggcagaa taacagaaat aaatagtcta catttggtt ctctgtagc tgacactggc 57480
tatctacaac catgggaact ccatcccaag ggggcagcac ctttgacccc cagcctgctg 57540
- ctccccactg agtatTTTTTg gctatcacta cctcccttat gctgaagagc ctttccccag 57600
agcttggcca tggcaggcag atatggcttc aggcccagc tcaacactta cctgtcaaac 57660
ctgggctgct tctgaggggg tttgctctct agagtccga gtaggtttcc acctccttcc 57720
ctcctggagc cgggacttag ttgagaagaa taaccttcta cttcaaggtc tgcgctcctc 57780
cccaggggca gaacagctct aacagcagta ggggaatgaa tgcagagccc ttcgcagaa 57840
acagggctct ttcaccgcct ccttgtctgg gcctcagaac aggcagggca ggattgattc 57900
atcctacgtg gtagatggag gacacagaga cccagagaag acaatcagca tctcacatct 57960
ggcagaaacc ccagaccaca aggcctggga ggatggaacc aggactctct cttcccagca 58020
aaacttccga cactgggaa gaaaatccca ggaccaggc ctgaggtggc cattttgagg 58080
ccatggggaa atccctggca gccggctgta gagacagcct ctgccagtga gagccacctc 58140
acccaaggcc acatctcctt cctggggagg cccacatccg atgactggcc aatgttgggg 58200
tagaaaggcc cagccctca acccaactcc tttaaacagc tctaaaggat catctcccag 58260
agttggctga ggctccatt ggagactgcc tcacagcca cgtctccccg attccctccc 58320
ttcccttgcc ctggcattga cccaagaaca caccctaata aatctcctca ctgtaccctc 58380
ctcctcagag cctggcttcc agggaaacca ccctgcggcc gctgcctcag aaggtgacag 58440
gtcccaggat tctgggccct ggggacctgg ggaccacatg ggggatccca ggaggacctg 58500
gctccctttg tgctttcagg ctggaccaga caactctgag tgatgagatg aggcaggaac 58560
tgaggggcct ggagcaggag aaacctcagc tgctcatctt cagcagacgg taagggggga 58620
cccagaactc cctctggctg acccaggccc agggctgagc aggagacagg gaaagagcca 58680
tggggtgaga gacaaacaca gccagggaga aaccagaca ccacagcagc cagagtgagg 58740
tgactttgtc agtgcaagta gaatcaaata ccccttgct tcaactctta acgttagaca 58800
aacaaggaaa ggaaaacatg aaaaagtaag tgggctaaaa aattagccag gcgtgggtggc 58860
gggtgcctgt ggtcccagct actcaagagg ctgaggcatg agaataactt gaaccaggga 58920
ggtggaggct gcagcgagcc aagatcgcg tactgcactc cagtctgggt ggcagagcaa 58980
gactgcatct caaaaaaaaa aaaaaaaaaa aaaagccggg catggtggct cacgcctgta 59040
atcccagcac tttgggaggc tgaggcaggt ggatcatgag gtcaggagtt caagaccagc 59100
ctgaccaaca tggtgaaacc ctgtctctac taaaaataca aaaattagct ggggtgtgtg 59160
acgcacgcct gtagtctcag ctacttggga gtctgaggca ggagaatcac atgaaccagc 59220
gagacagagg ttgcagtga ccaggatcac gccattgcac tccagcctgg gtgacagagc 59280
aagacaacat ctcaaaaaga aaaaaaaaaa aacaagaaaa agtcagtggg tgggtgagcc 59340
agcgaatccc ctggaccag cacagcatga taccaatgg cctctagtcc aggaatcctt 59400
ccatgaagaa cagagaaggt ttggaacaat gaaagcgatg atcacaagag ggagataaa 59460
acagagagag agagcgctg tgccctggga aaaagaccat cctcgccatc accgtcacc 59520
accaccctca ccaccaccac cacacacacc cctgacttga ggggcaagcc ccggggccag 59580
gaaagtccat cttcccttcc ccgaggaatc tgctgcagct cccacattct cccagttggg 59640
tgcatttcca cctgaccatg aagctcatct gtcccagggt tcctggctgc tgtggctcac 59700
ctgaaatgga aggaaaacag ctctagggt taagaggagc catttattca ttgaacaaac 59760
attccctgca gaccactat gtgtcgggca ctgtttggg atctaaggac acagcagtga 59820

acaagaaaga cacaacccaa cctccaggag cttagtccag cagggagaca ggcacagggtt 59880
atcccagaag tgtctgcgca aatgcacctg gggtcagtgt gagtgcacct atgggcctat 59940
ttgacctggt caagaggatc tgggctgagg tctgaaagac aggacagggtt ggctgggccc 60000
aagaaggggt ggagtccagg cagaagtaga ggctctgaga gagaaaagag tttagcctcc 60060
tggaggaatg ggaggccagg cgtcaggagc agctactcaa actgtggtcc gtggaccagc 60120
agcatgagca tcaccctcac tgggagctcg atagaactgc aaattctcag gccccactcc 60180
agaccactg aatcagaatc tctgggggtg ggcccaggaa tctgtgtctt tttttttttt 60240
gagacagagt ctgctctgt caccaggct ggagtgcaat ggcatgatct cggctcactg 60300
taacctctgc ctcccagggt caaaccttc ttatgcctca gcctccagag tagctgggac 60360
tacaggcgca tgccaccaca cccagctaatt ttttgtattt ttagtagaga cggggtttta 60420
ccatgttggc caggctggtc tcgaactcct gaccttgtga tctgcccgc tcagcctccc 60480
agagtgtctg gattccaggc gtgagccacc gcgcccggct gaatctgtgt cttacaagc 60540
cttcagatg attgttaagc gcacagtttg agaaccgatg gactagaggt cagttagcca 60600
ggaaaaagtg gccagggtga cattggaggg tgacagaggc cctggcaagc ctttttgac 60660
tatgttaaaa actttccatt ttccccaga agcaatgaag cgacattaca ggggtgcagc 60720
agccaagtga tgggtcagtt tcctatttca agaatgggct gctgtgtagg aaaataggcg 60780
gcagagggga cccgagcaga agcagggaga cctttcagag gatgctgcag tgggtgcggc 60840
cacagaggcc agggcctggg actcagggtg aggtcatgga ggtggagaga agacaataga 60900
aagaagagct atttgagagg tgtgtcaag gtgatcagct cttagggtg gcgaggaagg 60960
agttgggatg acaccacagc tctagcctgg atgcatgggt ggatggaggc tgctcacaga 61020
gacagggacc acagaagaac cacaggattg agttcaaatt cggatggagt tttttgttt 61080
gtttgtttt gtttgagaca gggctctggc ctgtcaccca gactggagt cagtggcaca 61140
atctcagctc actgcaacct ctgcctcctg ggctcaagt atcctccac ttcagccttc 61200
caagtagctg ggatacagg gcagtcacc atgccagct aatttttgta tttttggcag 61260
agatgagggt gggagggtct actatgttac ccaagctgg ctcgaactcc tgagcttaag 61320
ctatccacc atcccgccct ccaaagtgc gaggattaca gacatgagc actgcaccg 61380
acccgaggag gagggtgaatt tttagtggga atgtcatgtg gacagccctc gcttctcca 61440
agatcttagg cagaatgaac aattctttgt ccaggaaacc aagtgtgatg acccctactg 61500
agggcctgga tacgggagag atgagtaata gcacatcctc actcaagcgg cagagactcg 61560
gatcaggtag tttgaagggg caaggctggg agcatcgtga caggggttgg gggaggtcag 61620
ctgtgggagg tcattccctc catccctctg cccctgatgt gggacggggc aggtttccta 61680
ccaagaggg tgctaccccc acgagagagc tcccactcct aggaactggc tggatttccg 61740
ttaccctctc tccgagacc accggctggg gcttccctc tccagaacgt ctatggcatg 61800
tatcaaacc tgaaccgggg tccggcctct tccattcttg gctgctaagg cctgggaatc 61860
acatctccat ctttgccctg ccatctaaaa aaaaaaaaaa aaaaaaaaaa cagagtctca 61920
ctctagtgtt caggctggag tgcagtggca tgttcatggc tactgcagc ctaaaccttc 61980
tgagctcaaa caatcctccc acctccgcct cctgagtaga actgggactg cagatgctca 62040
ccaccatgcc tggctgatat ttttctttt tctgtagaga gggcggcttc ccatgttgct 62100
caggctaata tcaactcct ggacgtgagc aagatcttcc caattgctga gattgcaggc 62160
aagagccacg gtgcctggcc cctttcatct tttgaaccat gttctctctc aacctgcca 62220
cctgggcatg ctggggagag tggcacttct attccagtgg ggaaggggag atgggcggag 62280
gctgggctgg aggcactgga gtggggctcc ccagacagca ggcaggcagc catggagcag 62340
gagcagaagc tgcagacaca ctccctgcc tgggtccaggc aggcagcct tgggaagggc 62400
cccttacagt gcagccatag gggctagggg aggccaggcg ggagaatctg gagctgaccg 62460

ctgccttgct gtttcagagg aaagctcccc agaggtagta ccggtggaac tcttgtgcat 62520
gccttctcct gcctctcaag gggacctgca tacgaagcct ttggggactg acgatgactt 62580
ctggggcccc acggggcctg tggctactga ggtagttgac aaagaaaaga acttgtaccg 62640
gtgagtgagg gggctctgct ggtcccaggc tggcctcccc caccctactg cccatcctgg 62700
gtccccacag acagtcagcg ccacccccta cccccaactc acactcacca ctgggtcccc 62760
tcctcttgcc aagacaacag gcagagacag ggctgagaca ctgggtgtct gcttttcata 62820
- tggaaaaaaga tgttttctta tgaaacttaa aattttcaaa catatacaaa aatagtacaa 62880
ggagcttcca tgtaccatc acccagcttc agccactgtt ttgccaaatt cgtttcagct 62940
gttcaactttc cccctctttg ttattgttac agtattttta atccaagaca tcgggtgatt 63000
ttacccttaa atatttcatt acgcatctca aaaaacaaaa ataaaaacct tttcttccat 63060
aacataacta caatgccaat atcacatctg acaaagctgg cagtaagtct ttcatttcat 63120
ctactcccca atccatattc aaattgctca attgtctaaa acatgttctt atagttgggtg 63180
ttgtggtttg gttgggtttg gtttgatttg gttttgagac agagtcttgc tctgtcactc 63240
aggctggagt gcaatggcac aatcttggct tacctcaacc tccacctccc aggttcaagc 63300
gattctccag cctcagctc tctagtagct gggactacag tcacatgcca ccacgtgtga 63360
aaaatgaaaa ttgtattttt agtagagatg ggggtttcac catattggac aggctggctt 63420
cgaactcctg acctcagacg atccaccttc ctcagcctcc caaagtgtct ggattacagg 63480
cgtgagccac cgcgcctggc cagttgggtg gttcttatca ggatccaaac aaggctcact 63540
catttttatt tctttgttat atttcttaaa tctcacttaa ctctcttaat ctgtatgtc 63600
ctgttttatt aacagccact aatgagctaa ggactgtact agtagctggg gaccctaaga 63660
tgaatatggc agccctgccc tcccagggtt tacagtcgca ctagtagtaa ttctctatag 63720
tcatactcat gatctcttat ataacatgtt accactcacc aaacactgcc acagacatca 63780
tctcaaccag gagacagcgt cactcccagc tcacacctac agaagctggg gcatccccgg 63840
accactatt aaccacactg aggagccttg ggaatcac ttctgatctc tataaaagtg 63900
ttgtttccaa ttctaagggg ttagcattaa tattagcaca tacggccagg catagtggct 63960
catgcctata atcccagcac tttaagagac cgaggcagga ggatcacttg agtccaggag 64020
ttcaaggcca gcctggacaa catggcaaaa ccttgtgtct acaaaaaatta ccaaaaaaat 64080
tagctggacg tggtgacatg tacctgtagt cctagctact caggagctg aggtggaaga 64140
attgcctaag ccagggattt cgaggctgca gtgaaccaag atcgggccac tgcgtccag 64200
cctgggcaac agagtgtgac catatttcca tagattagat agatagatag atagatagat 64260
agatagatag atagatagat agattagata gattagatag atagatagac agacaagaca 64320
agacagataa tcttagcaca tatattgtta ttaattattg ctaaataggc cccttacata 64380
tacgaacact tgttatttca tcattaccat cattgccatc atcaacatag tagaaacagt 64440
tcacagctcc caggcgtgta ctaagctgtg agcatgcatt aagtcactta ttctcgtaac 64500
taggagatgg gagctataat tactcctact tacagatgag gaaacaaaa acaggaaggt 64560
taaagtactt gctcagggat ccacagtcaa gagcagaaga gccaggacta aaatgcaagt 64620
ccatctgatt ccgaagtctg ggcttgaagc cactgtaccg tatccgcaag cccctgcatg 64680
gggtctggca tccagcaggt gctcagttag ttctgtcagt aagtgtctgc ctctccctct 64740
tcttcccaga gttcacttcc ctgtagctgg ctctaccgc tggccaaca cgggtctctg 64800
ctttgtgatg agagaagcgg tgaccgttga gattgaattc tgttgtgtgg accagttcct 64860
gggtgagatc aaccacagc acagctggat ggtggcaggg cctctgctgg acatcaaggc 64920
tgagcctgga gctgtggaag ctgtgcacct ccctcacttt gtggctctcc aaggtaaaca 64980
acaggaaggt ataggaggga aggtggtggt aattatgggc ctgaaaggga gtgtagaatg 65040
ataatctcct gggagagggg gttgggggtt ccttagaggg gccgaggggg gggtatggag 65100

atggggacta agattttcct gcattccact cttctctgga cttatctttt tgaaacacat 65160
ctcccagcct cataattata tctgcctaaa cttacttgaa agtttttatt aagtgtcatt 65220
tatatagact gtatcactca aggtcccagc aggaaagaga tgatatgctc agttgagatt 65280
tttgaagaag cttttcaaaag acaggaccat ttacaaagta aggctaagtg aactaacgaa 65340
gaatgttggg gcaacagggg ctagcaacaa taggaagcca tcaactactcc tacaggcagg 65400
gagaagaaac agtgtcatca gacgccatct gagagctgga gccatgaaac aggggcttcc 65460
- catagaagat agtaatcaca aagtatgatt ttatgtcacc tccaaagact tcccacagag 65520
ttccaagaaa tatcagctaa cagtcaaaaa tctcaciaaag gggaaacaag gcaccagaag 65580
taagagccag cagaaacgac agataccaga atcagtcctt taaatccttc agatgctgaa 65640
attatcagaa aaagaacata aaataagtgt gtataatatg accaaaaaaaa aaaaagtaac 65700
cttaaaacta tcagcaaaaa gcaatgaacc attaaaaatg acaaatcaaa gttggaaaact 65760
aaattgacta aaaaaaatga aaaaacaagg ctgggcgagc tgctcacgcc tgtgatccca 65820
ggactttggg aggccgagga gggcgatca cgaggtcagg agatcgcgac catcctggct 65880
aacacagtga aaccccgctt ctactaaaaa tacaaaaatt agccgggctt ggcggcaggc 65940
gcctgtagtc ccagctactc ggaaggctga ggcaggagaa tggcgtgaac ccaggagggtg 66000
gagcttgagc tgagccaaga tcgcaccact gcactccagc ctggggccaca gagcgagact 66060
ctgtctcaaa aaaagggaaa aaagaataaa caatcaagta acttgtagga taccatgata 66120
agtcctaata tatatctaaa tggaattcca gaaagataag atagagagaa gggaaaaaaaa 66180
tagaatattc aacaagacaa ttgcaacaa atttctggaa gtattgagac atatgagact 66240
tctcagaatg agaatcccca aaactgcaat gcaggaaaaga gagagagaag ggagagaaaa 66300
aatcaagatt agtctcatta atgtgaaact acagaataag aaaatatgag ggaaagcctt 66360
gacatcagcc aaaaagaaaag ggttataggt gtgagccact gtgccagcc aatgtctgtc 66420
aatttagtga gcaagttaga agaactctgat gtgtcccat gtcaaatcat gactccaata 66480
gaagcttcat ttaattgctg ataaaatgat ttgataaaca atttatgtta tagcttacat 66540
cagttataag cacttttatg atttgtacag ttttagctaga tattaatagg gtttttaata 66600
ttttttcttg tcttaatttc tttatttccc aggaatagag gtaaatgaga atttattttt 66660
aatttctcat ttgttagttg atatgttgta gtatcatccc agtagttcaa tgtattttta 66720
gtatcacctc aaaataaagg tattaacttt acagtatgca tatattaagg taatcaaggc 66780
atatatataa gaaaaattat ttagaagcta gtagaaagag aaaaatcaaa tgagaaaaat 66840
aaaaagcagg gaactgctca gtaccagaa ccaggaaagt cttgtttgtt gagggccaca 66900
aagttcagta aacaattcaa gctgcacacc aggaggagag catggggcag ggaaatagag 66960
tcccgggggc ctccagatcc ctggggcacc tgggtgaaca gtcagggtca tatgggcatt 67020
ccctagggaa ggtcccagac taaaacagaa tagagggaag aggtgcaaga cagctctgga 67080
attgtagagg tccatttaga aaggaagaga ttgaggagag gaaactgatg gctgaaacaa 67140
gaagctggga caagttactt gtccccaccg ggcaatctat agagtaatga acacagccac 67200
taccacaacc agcctgcctc ttccacaagt gagaccgtgg ccagggatcc ccagggtactc 67260
tatcaagaag agaggggcct ggctaataga gtcagtgggc tcagctctgt cgtagctctg 67320
cccatgacca gcagcaaaag aacttggctt gcccacact gggatgctca gggctgcacc 67380
accactcctt gctctaacca gggatttcca ggagaaacct catgcagcta aggtctggag 67440
ccagaatgta ccaccagggc ccgaggggac aaagtctgcc ttcaggctct gctccagcgc 67500
ccctcattc cccactctta gaggtggatg agctggccct cccattgtg aggactccca 67560
ggccatgcc tgctcagtct cctgcgtgca tcaagtgggc ctgggagacg ggatttgtcc 67620
aaggaattgg gtgacctcc gagtgcacag gcactagct gaagcctgcc aggtgacag 67680
ccaaatcaga ataggaatga attcactgtg cttgtggcac tgtcctttgt ggcactggaa 67740

cttggccaat aagaactgtg aacaataact gagcatcctg tgccctggaac catgcaaggt 67800
agttccgtat atattaatat catctctttt ttcataatga accgggaaat taggcactac 67860
agttttccct tgggtgtacca gtgaggaaac tgaagccgag agaggtgaag accctcttcc 67920
agagttggga ttctatccca agtcctgttt atcccaggct aagagctaca cccctacccc 67980
tccccagtc tgcccaagcc catgtcccac tagccttctc tagaccaa at tctgagcctc 68040
accttgtggc cagataggat ttactccctt tggactccgt acacaagctt gtacaacctg 68100
- -cggcctgtgg gccacatgcg gcccaggatg gctttcgatg aagcccaacg tgaattcgta 68160
aactttctta aaacattatg agactttctt gcgaattttt taaagctcac cagctatcat 68220
tagtgtagt atattttaca tgtgtggccc aagacaattc ttcttcttcc aatgtgacct 68280
agggaagcca aaagattgga caccctgccc acagaacaag aggcaaatg cacagaggct 68340
gcttttagct agctgtgacc agccaggaaa ccaatccctg gggccgggca gggccccctt 68400
cagaaatgct tgctgcctgc tgtctgggct gcagctgttc attgccctgg aaacgatgac 68460
ctcactgcct gacacagggt ctgatttagg acttgggcac tgggtgcttca tctactgtcgt 68520
cgctgaacgg gtgatgagtc attaactttc catgggtgagt tttctccac tatagctaga 68580
gcttgaggct ttcagcctct cagcttcac accgtggcaa tgggcattct caccctcctg 68640
caggaccagc tccagcagtc atagggccca gcacaaaatg aaagcgcgga gctcttcatt 68700
caaaaatgat taagaatgtc aagaccacca aacatgaaac caagcaccaa gccctgctga 68760
gctcaggacc ctgtgtgact gcacaggcca cacatccatg aagctggcct tgtccttcgg 68820
gtccttcgtt cccccaccca cccatctcct tcagcacaca cagacctctg ctctccacac 68880
aaccctccct ccaagaggaa gtgagttccc tcatttttgt cacacttgct cctctctgtg 68940
ctgcctgtgg gaacaagaac acttcacaca gacacctgag tggggtctcg cccattccc 69000
actccctccc cctgcccacc tactcaggag ttcaaccaga tgagatggct ggaaaccaca 69060
gtgggtatccc tcaggcctca aaactgttgt cttcctggaa ccaacactta ctgaatcgta 69120
taacaatata gagtcccaaa actcagatta agcaaatgg atattcaaaa taccttagtg 69180
gctgggtgca gtggctcaca cctgtaattc caacactttg ggaggcagaa acgggaggat 69240
gacttgagcc caggagtctg agacaagcct gggcaacata gtgagacccc atctccacaa 69300
aaaaatattg aagaattagc caggcatggt ggtgcgcacc tgtagtcca actactcagg 69360
aggctgagggt gagaggagca cttgagcctg gaaggtaag gctacagtga gtcatgatcg 69420
tgactgcac tccagcctgg gtgacagagc aagactctgt ctcaaaaaa aaaaaaaat 69480
ttagtagctt tttcttccca gacccaaga gttaccaaga ggactgggccc gagttgtttg 69540
aggaagaaac agaaggaacc accacagcca ggtggataga ttgggtcaagc tgcattttat 69600
ctgtaatacg agcaagtggc ccttattatc cccagggctt tatagacaca aaccagtc 69660
atctgcacag tgacaccggg agggggatgc tgttatcagc cccactttac agatgatgca 69720
cagagagggc aagtaatctg ctcagagtc cacagttgggt aaaaaccctt gctgggagtc 69780
aaagccaggc agtcctatc atttagctgc tctgctagac aaccctctag tgccctacct 69840
tcatgtgatg tgggtccac tgtccctgct tgagtaggag agccactgtg cccctcaaca 69900
gctcacctga gctggaagg tgcagaccac acacactcag caggaagggc acggccaggc 69960
atcaggccac aggcccaagg gcagcatcta aaggaggag agtccccagg ctcctggaca 70020
gcaggagcag caatgtccca aggcaaacac cgggcatgcg gctgggaaag gaggaaggag 70080
ctgacaggct tccattggcg gagcacttgt catgctttga gccattgttc tatttgctgt 70140
ctgtattccc cattgggcca caagctctgg aattgcagt cccatgtctt tcctgttcac 70200
agctacatcc acaggggctg gcacattgtc cgtactcagt aagcttttgt gtaataagca 70260
gatgcaaagc cctggacccc agaccacag aaacatgcct acctcatgat agctttttct 70320
aaatttttct ggtgcaacca gccaaaggca gcgtaggctt ttctgccagt gagacttcct 70380

ccagtcaaca ctcaaccttc ttctccttca gaccacagtc ttccccattg cttcccttct 70440
ctctccaatc tatcagcaca aatatactgt caggtttgga tgagggtgact ctaccacaat 70500
ctatggaaag ggcagtatgt gcaagaagg gggtgaccag ctcatcttaa cactgacagt 70560
cctgcacccc caggagccct ctcggtcctg ggcaagcatg gacagttggt caccctagca 70620
agaaggttaag ttggagacac ccagcacctt ctggaattca gcaaaaattc aagtggcacc 70680
gagcgtctgt tagtgctcca gactgtggtc agaatcctgg gatctgggtcc taggaccatg 70740
- - gctggttgtg tggccttgga aaaagcactt tcctcccagg atttcagctc cctcaactga 70800
catgtgaaga cattccagtg ctttgagggt caggatgaga ccatccattt agtgccagtg 70860
atggcaacgc aaaccagcat cgctcttgga agaagcaact ggggagtga ggaggtcata 70920
ccatctcaca cgctttcctc atcccttggt actgattgat ttcaaggcaa taacacaagg 70980
gaaatagaag ctttctgcag aatatgtgca ttgcagggtc tatttatcat ggtgaaaagt 71040
tggaagcaaa ctcaacactg aaatgagaaa caggctgaat cacagggtgg tgcattccact 71100
agcagggtatc atatactgtg gtaattaaat ggtctgacat cttgacagca agttaaactg 71160
tcacaggaaa caagagacaa agtatcatgg actacaataa aaataggaaa aggtgttgcc 71220
gcagagaaaag actgtaatgc aggcgtccca tgctaagaat agttatactg tggccaggcg 71280
cggctctggga ggccgaggca ggtggatcac ctaagggtcag gagttcaaga ccagcctggc 71340
caacatgggtg aaaccccatc tctactaaaa agccaggcgc agtggtgcat gcctgtagtc 71400
ccagctactc gggaggctga ggcattgagaa tcacttcaac ccaggaggcg gaggtgtgtg 71460
tgagccaaga tcacaccact gtactccagc ctcggtgaca gagctagact ccgtgtcaaa 71520
aataaaaaaa gaatagttgt attgtttgat tggttaagatt cataggtgaa ttcttcctca 71580
tttttttcaga tgatagatac cactgtgact ttattttcat cccaaaaacg cagttaaattg 71640
acaaaactta agtaatggtc ttcggtggacc cttctgggat tgacatctga ctaagggtct 71700
tgtccagctt gctggatgcc ttgttgccca gaaaccactt gcattgcagc agttaccagg 71760
caatgcaggg atggagctgg gacctctgat ccctaggcca gtgtctctcc cattaccagt 71820
attcatccct caagctctct tgtaacttca atgtccttgc ctggcgctgg tcagagactg 71880
caatcaaagg taccaattct ggctgattta agcagaaaag ggatacattg aaaggttatt 71940
gactaactca tagacttagc aaaaggttat gcaacaaatc taagcggggg ggaagatagt 72000
gacccaatga ctacagagaaa ccaagggcag agccaagggtc acatcaggaa aatacggaga 72060
caggcggcag aaaatacggg gacagctact gtaggaccct cctgcccagg agccactggg 72120
ctctttttct ttctttctgg tattttgttt tttgtttttt gttttttgtt tttgagacag 72180
ggctctactc tgtcaccag gctagaatgc agcagcacac tcatagctca ttgcaacctt 72240
gaacttctgg gttcaagtga tccgcccacc tcagcctcct aagtagctgg aattatgagt 72300
gtgcaccacc acacctgcct ctactggac tcttcacca actgctactg ccagaattct 72360
ctctctctgc atctgtttca cccctctaga cttgaggtcc cagttagaga caaccactta 72420
gtcaagtctt ggtcacacac ctgtgtcctt gctgccaggg agtagtagca tcctgagtgg 72480
ggggcttggc ttgcctcctg ccaagacca cagctgctg gaggaggagg ctcttcctaa 72540
aaagaagagt ttgaatagt agtgccaaa caccttggtc actctatgtt cctactgcc 72600
cttctcctc cttgttctct acctgcctag tcaaaccttc cagcatcact caatggtctc 72660
tcatagagaa tccacaccag cacaggcaac tagaggttct atatcttcc cagctccagg 72720
gccaggggct gggtttgctg ataagtttg ctcaagggtg ctcttgagc tccacttagg 72780
agttcagcac tgctaagtgc tcccacctgg tggcacaatt tcccacagcc tccaaaggcc 72840
ccaggcctag aaatgcctc tccccatgc tgggtgtctt acctgttca ggctgtata 72900
acaaaatacc ataaactagg taccttgtaa ataacaaaaa tttgtttctc acattcctgg 72960
agcctggtaa gtccaagatc aaggccccag cagatttggt tttttggtaa ggccattcc 73020

tcatacatgg agccttcttag ctgtgtcctc acaggggtgga agggacaagc aagctccctt 73080
gagtctcttt tgtaagggca ctaatcccat tcatgagaat tccaccccca tgacctaatc 73140
acctcccata aaagcttcac ctcttaatac catcaccttg ggggttagaa tttcaacata 73200
tgaattgtag gaggacacag acattcaaga ccatagcact gggctcccc aagagggtac 73260
ctgagcctaa gccctgggat cctacagtgc cagcaaatcc tgactcagta acaacactaa 73320
atctaggcct cttgggctgg atgcagcggc tcacgcctgt aatcccagca ctttgggagg 73380
- ccgaggcagg cggatcacct gaggtcagga gttcaagacc aacctggcca acatagttaa 73440
accccatctc tactaaaaat acaaaaatta gctgggcatg gtggcaggcg cctgtaatcc 73500
cagctactcg ggaggctgag gcaggagaat cgcttgaaacc caggaggcgg aggttgcagt 73560
gagccgagat tgtaccattg cactccagcc tgggcgacaa gagcgaaact ctgtctcaac 73620
aaaataaata aataaaaaata aacctgtgcc tcttcaatcc attcttttac agggggccat 73680
gtggacacat ccctgttcca agtggcccac tttaaagagg aggggatgct cctggagaag 73740
ccagccaggg tggagctgca tcacatagtt ctggaaaacc ccagcttctc ccccttggga 73800
gtcctcctga aaatgatcca taatgccctg cgcttcattc ccgtcacctc tgtggtgttg 73860
ctttaccacc gcgtccatcc tgaggaagtc acctccacc tctacctgat cccaagtac 73920
tgctccattc ggaagggtgac actaagagcc agaaaggctg ggccacggtg ggttgacggt 73980
aaacacaaaa tgcagccaga gagcccccta gaggtcttc aactgggacc aaggatgggc 74040
ctcttgtaaa ggagaacctt gaagtgggca aacaattcgt cccctctcag tcttggactg 74100
gtctcctgcc tctccaaggt atccccctgc taggttcatt gatcaatcac tgatctttgg 74160
acagtttctt acggccccctg tccaggaatc aaaggattgg agtcctccat gcctaaaact 74220
gtagcctttc ctcatcttaa ctccctaac aataacccta ttcctatcct gaagacatca 74280
aagaccaagt gcgggctgtc tctgtagcag tgcattgggg gagggaggca ggggtgatat 74340
agccccactc tgtccacaca aacacacaga tgcaccatcc cccctattca aaccacattc 74400
catggggcag aagcctccct taatcattgt tccctatgtt ctgtaggcca tagatgatct 74460
agaaatgaaa ttccagtttg tgcgaatcca caagccaccc ccgtgacct cactttatat 74520
gggctgtcgt tacactgtgt ctgggtcttg ttcagggatg ctggaaatac tccccagggt 74580
gagcagccca gtgtctgcct ctctactgcg aacagaagtc ctacctggga atgaatgcct 74640
gtggggcagc tctcagggtt ttctcaggga caggataaat cgaggttgaa cagaaagtga 74700
gtgggattta gagaaagtgg gaatgcttcc aagactggga gaaagaaagt tcggaggagg 74760
gaggatcaca tgcaggatgt gaaggatgat ggggtttgac ttgggggcac tgggaagtgt 74820
ttgggctata ggtcatcaat gtccttcagt ccagaccacc aggaacaaac ctgtagttga 74880
acatactggc tttattaatc attgcagtgg cagaacacat attatgggga accatgggggt 74940
gtctcagtaa aggggtgttg aaagaatctg ctataggatt tgggccttgg ttgcatacat 75000
ttgaggaaga tctaaggaaa cgaagatttt ctttagattg ggtgttggtt caggccacac 75060
ggagatttgt ggaagaacat ttcaggcaga aggaatgtgt gcagaggcat agagggtggga 75120
gcaagcttga cgcctccaga tgacaaaaaa gaggtcagta tagcaaaaga tgagtcagat 75180
tagaggcagg gtcttaccag gcctcatctg ccctgttggc cctggtatgc actttgcact 75240
ttgttctaag tgcaatggca agcttttgag ggtcataaac agctaataca agacctgatt 75300
tacagccagg cgcggtggct cacgcctgta atcccagcat tttgggtacc gaggtgggca 75360
gatcacttga ggtcaggagt tgcagaccag cctggccaac atggtgaaac cctgtctcta 75420
ctaaaaatac aaaaattagc tgggtgtggt ggtgtatgcc tgtaatgcca gctactcagg 75480
gggctgaggc aggagaatca cttgaacctg ggaggcagag gttgcagtga gccgagagtg 75540
caccactgca ctccagccta ggtgatagag caagactctg tctcaaaaaa aaaaaaaaaa 75600
aaaaaaaaaa gacctgattt actttcataa agatgcctct ggctgctggg tgagaacgaa 75660

tgataagcag gcaatagtga aagcagagag acaagtcaaa aggccattat gggccaggcg 75720
cagtgggtca cgcctataat cccagcactt tgggaggcca aggcgggtgg atcacctgag 75780
atcaggagtt tgagaccatc ctgaccaaca tagtgaaaac ctgtctctac taaaaatata 75840
aaaaattagt ggggcatggt gagaggcacc tgtaatgcca gctactcggg aggctgaggc 75900
aggagaattg cttgaacccg ggaggcagag gttgcagtga gccaagatca cccccctgc 75960
actccagtgt gggctacaag agcaaaactc tgtctaaaaa aaaaaaaaaa aaaggccagg 76020
- tgtgggtggct cactcctgta atcgagcac tatgggagtt caaggcaggc agatcaccta 76080
agatcaggag ttccagacca gcctggccaa gatggcaaaa cccagtctct actagaaata 76140
caaaatthag cggggagggc cgggtgtggt ggctcaagcc tgtaatccca gcactttggg 76200
aggctgaggc gggcggatca caaggctcagg agatcgagac catcctggct aacacagtga 76260
aaccctatct ctacaaaaaa tacaaaactt tagccgagcg tgggtgggtggg tgcctgtagt 76320
cccagctact tgggaggctg aggtaggaga atggcatgaa cctgggaggc ggaggttgca 76380
gtgagccaag attgtgccac tgtgctccag cctgggcgac agagcgagac tccgtctcaa 76440
aaaaaaaaaa aaattagccg ggagtgggtga tgggcacctg taaaccctga tactcaggag 76500
gctgaggcag gagaattgct tgaacctggg aggtggagtt tgcagtgagc cgagatcgtg 76560
ccactgcact ccaacctggt caacagagca agacctgtc taaaaaaaaa aaaaaaaaaa 76620
tgctgtttgt gttgggtaca gtgactttcg cctgtaattc catcactttg ggaggccata 76680
gtgggagaat cacttgaggc cagtagctca agaccaacgt gggccatgta gggagacctc 76740
atctctatga aaaatgaaaa aatgagtatg gtgatgcacg cctgtagtcc cagctactca 76800
ggaggctgag gcacttgagc ccaggagttc aagtccagcc tgggcaacat ggaaaaaccc 76860
catctctctt taaaaaaaaa agaaaaaaga gacaatagag agaaagagaa aaagacaaaa 76920
ggctgttgca atactgcaag ctacagttga aggtcacttg actaggaagg tagcgaggga 76980
gatggagaaa agtatatgaa ttcagggttg attttgaagg cagagccaac aggacctgct 77040
ggattgcctg tgtaggaag gacttaagca tgattccgag tttggagcct gcatgctcag 77100
tggatgggtc tatcctttac tgagtttggg gaaactggaa agggagcatg tttggaagac 77160
agtggggaat caagagttct gtcttagctg ggatttagga aaggggatgg atataaattt 77220
ttgtcaatcg acagtgggtg gagttaggg tccattggga agacaggctt tgggctggag 77280
aaatgagggt ttggattcaa gatgggggag gtgaaggaa aaggatctgg cttaggatta 77340
tgagcaatac gtttaaggac aagccctgac ttccccgtga ggaaatcagg ggctcctcat 77400
ccttctgtgg aaaattggga aaagagcaat gtctgaagg gatggttgat ttcagtacag 77460
ggatcatcag agtgtcctta tggagccaag cagggccaa aagggtgtcag gtggggaaag 77520
accttccatg caagatgaac aggggtggca atcaactctt tgcctcttca ggaactggag 77580
ctttgtatc gaagccctgg agaagaccag ctgttctcgg agttctacgt tggccacttg 77640
ggatcaggga tcaggctgca agtgaaagac aagaaagatg agactctggt gtgggaggcc 77700
ttggtgaaac caggtaaact caggacaatt ccagagaact cagaggtggg aggagaaaga 77760
aaatcaatga agttgctggg cacagtgtc acgcctgtaa tcccagaact ttgggaggcc 77820
gaggcaggca gatcacaagg tcaggagttc aagaccagcc tggccaatat ggtgaaaccc 77880
catctctacc aaaagtacaa aaaattagcc aggcgtggta gcgcgtgcct gtagtcccag 77940
ctactcagga ggctgaggta agcaatggcg tgaacctggg aggcggagct tgcagtgagc 78000
tgagatcgca cactgcact ccagcctgga caaaagagca agactgcaat ccaaaaaaaaa 78060
agaaaaagtc aatggaagaa agtctgtgta tgtgggaggg gggggggtgc agagtgcact 78120
atcacagttt attgatgaga agaaatagcc cacaggaggt aggaggtagg tggctttctc 78180
aagttacata acagttgtta tgactagaat ttaaacttga ctcaatctga ccctctaaaa 78240
tttatgttct ctcccatgca caatggtgtc ttcacagtgc cttgaatta acagatgtcg 78300

acatacacaa agcttttagc taagtttctc atgatagttt ggggtgtgagg tggagaata 78360
agacctagat agtcatatgg tcgtatgggt taaaccgatt tggcaatttc agatactctc 78420
ccctgtatcg ctcagtattt ttgaggtagg caagaggaaa tcaaataata aattttcttg 78480
gatagagaaa atttatggac tcttagtcta gtaccaacaa tctaagaacc caaaccacca 78540
aacagtcctt ctaggacaac catccctagt cagctctcaa aaaatgggtga atctacctct 78600
gagctgcaac aagctggctt cacagtgtag tggaaagagg atgggcttta ctgaatcctg 78660
gcttgggtgc aaccacagat ggagaactaa ccagcccag cttcagacct ggattcaa 78720
cccactctgg cacttacttg ctgagtgacc ttgggaaaat tacttaattc atttgagtcc 78780
ctcgtctgta aaaagaggat cataatgact aatttgtagg aatgctggaa agattaaaca 78840
aagcgtatgc tatacatgcc tcatgcagta atccttaaca aatcgtagca atgttatctt 78900
tttctcatg ttaagccaat ctctgcctct tatcagtctt aattctgtcc cttggaactc 78960
atagaaaaag tctatctcct tccccttaaa tctaaaaagc catttagatt ctcaaagact 79020
gtggtcatag cattcctgat gactcttggt atgcaagtta gacatctcag ctccctccat 79080
cattcctctt ctattttgggt ttgtaaattc ttggccatcc agtcacctcc cttagtagat 79140
gctccagtgt gggaatgagt cagaattgac ccctggactg tccagtcagc agagagcatg 79200
taaacaccct cttttctcca cctacatgga cccgggtgctc ctggtaccac aacctgaact 79260
ccctcccttg tgccacctc cctgaactgt gagatcacac tgaacttaga gcctgctcag 79320
actctcaggc cttgtacatg cgagctgctg tgaacttccc ctttctctcc tttgcaaagc 79380
aatttttaag tcccttcatt ttgtcggtg tctgtttttt ctgttaaaat taatttggtta 79440
ttcccatgtc ctaagattgc ttgatcttga ttctagattc tgacatccaa atccagaacg 79500
tacacctttg gttggtgcca gtctagaagg ctaaaacaaga acaaggaagt agatttctgc 79560
tcagacaagg aggtgctaaa tagttcaagc tatctagcaa ggggtttgggt tagttcacca 79620
gggatacaat tcaggccaac acgggattaa aaccaagtct gggatgttat aggagaaatt 79680
gctatcgctc atttggtatgt cttctattac tgtatgatca cagcttctga gcctcagttt 79740
ccccatagc ataaggaagg gattcaccta aataacctct aaggacctt ccagctctta 79800
ctccagattc taccagaatt tgtctgtggc ttttttctaa atcaaagaat ctcaagaagt 79860
agtgggagct tggaggtgta ccatgtgtgt taataactta gcaactgttc agatgcatct 79920
tcctctctgt tttctccag gagatctcat gcctgcaact actctgatcc ctccagcccg 79980
cataggtcag taacagctct cagagaccac aggaggcgggt ggcagttctg gggtagctg 80040
tggttctggg ggaagggaag agagaaagga agggactcat cactgcaaac ctcaaaaga 80100
gtcaggccct ggagagcgggt gcatggctgc tccccatacc cccttgtcct atccacagag 80160
accctagaat tccttatctg acagcctcca atgtgccag caggaacccc actcccgatc 80220
cccactctgg cagaatgcca agctagatgc tgccatgagg gaggacacag gtgcatttct 80280
ggaggcagaa ggaagcgagg gatgcagaga tgagagagga aagcactgaa ggtggggatt 80340
ggaggtggag gctgtggttg gagcccttct ttgttcggtg ccagccgtac cttcacctct 80400
ggatgccccg cagttgctgc actttgtgga ccagtatcga gagcagctga tagcccgagt 80460
gacatcggtg gaggttgtct tggacaaact gcatggacag gtgctgagcc aggagcagta 80520
cgagaggggtg ctggctgaga acacgaggcc cagccagatg cggaagctgt tcagcttgag 80580
ccagtcttg gaccggaagt gcaaagatgg actctacca ggcctgaagg agaccatcc 80640
tcacctcatt atggaactct gggagaaggg cagcaaaaag ggactcctgc cactcagcag 80700
ctgaagtatc aacaccagcc cttgaccctt gagtccctggc ttgggtgac cttcttttg 80760
gtctcagttt ctttctctgc aaacaagttg ccatctggtt tgccttcag cactaaagta 80820
atggaacttt gatgatgcct ttgctgggca ttatgtgtcc atgccaggga tgccacaggg 80880
ggccccagtc caggtggcct aacagcatct cagggaatgt ccatctggag ctggcaagac 80940

ccctgcagac ctcatagagc ctcactctggt ggccacagca gccaaagccta gagccctccg 81000
gatcccatcc aggcgcaaag aggaatagga gggacatgga accattttgcc tctggctgtg 81060
tcacaggggtg agccccaaaa ttgggggttca gcgtgggagg ccacgtggat tcttggcttt 81120
gtacaggaag atctacaaga gcaagccaac agagtaaagt ggaaggaagt ttattcagaa 81180
aataaaggag tatcacagct ctttttagaat ttgtctagca ggctttccag tttttaccag 81240
aaaacccta taaattaaaa attttttact taaatttaag aattaaaaaa atacaaaaaa 81300
- gaaaaaatga aaataaagga ataagaagtt acctactcca taggcacagc agtcccgact 81360
ggctgctggt tggctatttt tgtggttatt tcttgatcgt gtgctaaaca aggagtggat 81420
tattcatgag ttttccagag aaaggggtgg gaattcctgg aactgaaggt tcttccccct 81480
ttcagactac ttagggaaac ttccagatgc tgccatggcg ttcgtaaact gtcatggcgc 81540
tggtgggaat gtcttttagt atgctaattgt attaaaatta gcatataatg agcagcgagg 81600
acaaccggag gtccctttca tcaccatctt ggtttgatgg gttttggctt ctttaccaca 81660
tcctgtttta tacgaggagt ctttgtgaaa ccagtcctgc caacctccta tcttatcccc 81720
acctcagaca ttacatactc gtccttaatc ttaagagggt gtagaaggac agagatctat 81780
cttctgtcac tgcttcatgc tgaacagggg ccatcatccc tacctgctct ggaggcatag 81840
aaatgtcttc gtacctgac gaatgactta tagggactcc atcttttctg cagtggcaca 81900
ggctggaaca ctggactaat tatttttctc tgaaactggt gtagcctgga agacataaac 81960
ttgaaccgtc cgaacacctg atgaatataa caaatatttt taaaatcaaa tagcacctag 82020
tgataattca taaaatactt aagcccagtt ttaagaaga gatcaaagcc aagcatggtg 82080
gctcatgcat gtaatcttaa cactttggga ggccaaggca ggaggatcac ttgagctcag 82140
gcttttgaga ctagcccggt caacatagac tttgtctctt taaaaaata agaaagaaaa 82200
aaataagaga tcagatgcca tttggaatct aagtgaatag gctggaaaac tagtcttctg 82260
ttgtctgaaa tacaaagcca aacagatttt taataagaga gatttttatg agaacagaag 82320
aaaaaaagggt taatgctgga cacagtctat ccagggtatta gactcaaaag catctttagt 82380
tataaagcag gaaagtgggt gcaatctgac acgcctgtat cacaagggtat aagcttttagc 82440
ttgcagggcc tcaggagaaa gctagtagta attttactgt atgcagatct ctaagctggg 82500
ggtgacacag gaggtgggca ggactggctt cacaagatgc aggtcacaaa gactccactg 82560
ataagatgcg gtaaagaagc tggccaaaagc ccaccaaagc caagatggca atgaaagggg 82620
ctcttggttg tctcactgc tcattatatg ctaattttca ccctcctgta ggaccagctc 82680
cagcagttgt gggacccagt gcaaaatgga aacacagggc ccctcgttca aaaatgataa 82740
gaatgtcaag acggtgacaa cagaacatga aatcaagcgc caggccctgc tgagctcagg 82800
gctctgtgtg accgcacagg tcacacaccc atgagactgg ccttgtcttt cgggtccttc 82860
acgccccacc caccatctc ctttaccaca tgcagacctc cactctccac acaacccttc 82920
ctccaagagg acagtcaatg ggaagtaaga agatttaaaa gacaaggggc aaagaaaaat 82980
gcaatggtgt gtttccattg tagaaaacct ggtcgtggaa ttgcggattg ccctgccgcc 83040
cttgaaaatc aagatatggg cactagaaga tgttacaagt gtgggtccac agatcacgaa 83100
ataaccaagt gtaaggctaa agtagaccgg cctcttggcg aatgtccttt tgcagaatgt 83160
tttgtctgtg gagaaatggg gcacctgtct agatcttgtc ctgataatcc caaaggactc 83220
tatgctgatg gtagtgggtt ccaacttcat ggctctgtgg aacatttaaa gaaagattgc 83280
cctgaaagtg agaattcaga tcgaatggcc acagtgggtc tgtgggcaaa ggggaataagt 83340
gcagactatg aagacattgt ggatgcacca aaaccacaaa aaccacaaaac aaaaatacct 83400
aaaggtgtta atttttgata acaactagta ctgtcattag ttaccacctc attgttactt 83460
tctaaaccag gccacttca caagttacag ctgggctccc ttgtagccag gactatactg 83520
taaatatcag tatgatctgg gtgtggtcaa aaacaatttt caacagagag aaagaagaaa 83580

gaagagagag aaagaaaaag gaagagaaaag aggaagagga aggaatgaag aaaaagagga 83640
aggaaggaag gaaagagaga aaggaaaagag aaagaaagaa gaaagagaaa gagaaagaaa 83700
aagaaaagag aaagggaggag agggaaaagaa ggaaggacct acgcgaggag gggctccgcc 83760
aaccctctaa gccccgcaac ccccgcatgc cccgcctcct tctgcagacc tccccgtccc 83820
tcatcccgagc aagtcctcac gttagtgtgc ggaagcctag gaaatgtatt cctaaatctg 83880
gagtcgtctc catggcagcg agccccgaag tggagccagt cttggagtag gagaaaggcc 83940
agacacaaaac aagtgtgtgg ggatggggga gacacacatg catgtccgct ttggatccag 84000
attctctttt ttttttttag acggaggctc gctctgtcgc ccaggctgga gtgcagtggc 84060
gcaatctcag ctactgcac tctactgcaac ctccacctcc cgggttcaaa cgattctcct 84120
gcctcagcct cccgagtagc tgggattaca ggcgcccacc accacacccg gataaatattt 84180
tgtattttta gtagagacgg ggtttcacca tgttggccag gctgggtctcg aactcctggc 84240
atcaagtgat ccgcccgcct cggcctccta aagtgtctgg attacaagtg tgagccaccg 84300
tgcccgccct ggatctggat tctaatagca acagctagaa ttctgaggga caggcagtga 84360
gctgggaatc aaattcttgg ctctaccacc cattagatgt gtgatcttga aacagggtttt 84420
cagatgtgta agaagggaat agcaaagctt gcgtcaaacy gttgtttgac taggtgagct 84480
catgagtggg aagttgttct gggcgagctg gtacacaaca ctaggcagac agtaaattctt 84540
agcttctttg agcctgaggc tgttgtaggt gccagtgata acagaggcca gagtatctat 84600
tctcaagcaa tttatattct agtggcaagg agatacgaay tacgcaccca tgtctgtaat 84660
cccagcactt tgagaggcga aggcctgaag atctattgag accaggagtt tgagaccagg 84720
agttcaagac cagcctgggc aacatagcaa gacccgtct cttaaaaaaa aaaattttttt 84780
ttcatttttt tggccagatg cagtggctca tgcctgtaat cctagcactt tgggatgtca 84840
aggcggacgg atcacctgag gttaagagtt taagagttca agaccagcct ggccaacatg 84900
gtgaaactct gtctctacaa aaatacaaaa attagctggg catgatggca ggtgcctgta 84960
acccagcta ctcgggaggc tgaggcagca gaattgcttg tacgtgggag gcacagggtg 85020
cagtgaagcc agatcacgcc attgccctcc agcctgggca acagagcgag cctctatctc 85080
aaaaaaaaaa accagttttt ttaattagcc gggcatcgtg gtacatgcct gtattcccag 85140
atactctgga ggctgaggca gaagggctcc ttgagcctag gctccagtga gccataatca 85200
tgccactgca ctccagccct ggagacagag caagatcctg tctctaaata aaaataattg 85260
gctgggtgct tacctataat cctagcactt tgggaggctg aggccaatga attgcttgag 85320
tccaggagtt tgagaccagc ctgggcagca tagtgagaca ctgtctctat ttaaaaaaaa 85380
aaaagaagaa gaagaataga agaaagatct ttttgaatag agatagatgg caacttcctc 85440
agaatggatg tgacggttga acagcacatg gagatgatgg gaatgagaag tgcagggcag 85500
cagggatcat tctcaacaat ggtggaaaat tggagtcttc caggatcact gtgttcagac 85560
taatccaccc tacatgaagt tttctttctc tttaaagtgg gccacttgga acagggaccc 85620
ctgtcaaaga atgcattcaa gaatcatgga tttggctggg cgaggtgact cacgcctgta 85680
atctcaacac tttgggaggc tgagacggat gaatcacctc aagtcaggag tttgagaccg 85740
gcctggccaa catagcaaaa cccatctct actaaaaata caaacaaaat gagctgggag 85800
tgctggctca tgcagtgagc cgagatcacg ccattgtact ccagtgtagg caacaagagt 85860
gagactccat ctcaaaaaa cggaagaatc atggaatgct tccaccaggc actctgatgg 85920
atggtgggag ccctgggctg agcttaatgc ctttcttgaa ggagtcactc tcccaaggag 85980
taggatttgc caggtgctag aatccgatag aggccatgag caatacttgt ctcaatggtg 86040
ggataactac agattttaaac tttgagccat gcacacactc tgggtccaggc cccagtcctg 86100
gagcaagaag gaagcagggg aaggaagaag gtcctctgga acctgtgatt acctgtgtg 86160
tgtcagggtg tatgattgtg gggaccccat tgagtgtctac tcacagggtta gccccaggca 86220

ggttaggaatg agaaggagga gaataggaga agaagaggaa aggctagaca ggagcatgac 86280
tggttgagag aacttgaagg gaagtctagc agtagtatgg acgctgtgct attgggtcagg 86340
agtctctgtg tgttcttggg ttcttagcaa ctgctgttaa gcaggtagtt gctaggcaat 86400
gcggggccat ctaggcgggt aggtaaggac ctttgtctgc gtgggcatga atcagaccat 86460
cacagagtat tgttaatcct gaaaatggcc actgggtcca ttacttagat ttttttggcc 86520
ttgttgaca gaaactaata taaccatggg gcacaagttc tgggtcaaag agaaagaagt 86580
- caccatga tctcattatc caaacaatac aaaaattctg tctttctctt ttccattcca 86640
gtctttctct gcaggaacac attttcatct tggtatcatc ctagtacatg gggtttttaa 86700
ccttgttttt ttgactttga ttttagatcat cacaagcatc cctcaagcta cttaagagtt 86760
ttcaggataa tcttcccctg catgactcct tgcagtagat atatcattta cttaactatt 86820
ctcctcttgt tctgacattg agtttgcttc caattttttg ccacaataag cagtactgca 86880
atacacgtct ttctgcagag agcttttctg tatccttttag atcactgtct tgaagtcaat 86940
actaagggat agtatcaaag ggcataaata gtctcatgac tttctatatt ttgcaatagc 87000
ttccctcatg ctgggtgcag tggctcaagc ctgtaattct cacactttaa gaagccaaga 87060
aggaggatca cttgaggcca ggagttcaag gccagcctag gcaacatagc aagactctgt 87120
ctctacaaaa caaattttatt ttaattttta tttttctttt gagacagagt ctcgttcggg 87180
caccaggct ggagtgcagt ggcgcaatct cagctcactg caacctcggc ctcctagggt 87240
caagtgatct tctgcctca gccatctcag tagctgggat tacagggtga caccaccata 87300
cccagctaatt tttttttttt ttctgagacc gagtctcgct ctgtcccca ggctggagt 87360
caatgacacg atgtcagctc accgcaacct ccgcctccat ggttcaagca attctcctgc 87420
ctcagcctcc tgagtagcta ggattacagg cgtgcgccac cacgcctggc taatttttgt 87480
attttttagta gagatggggg ttcaccatgt tggccaggct ggtctcgaac tcttgacctt 87540
gtgatccgcc cacctaagcc tcccgaagtg ctgggattac aggtgtgagc cactgcccct 87600
ggccgctggc taattttttt cttttttgag acggagtctc gctttgttgc ccagggtggg 87660
gtgcagtggc gcaatctcgg ctcactacaa ccccgccctc ccgagttcaa gcgattctcc 87720
tgccctagcc tcttgagttt ccagtaactg ggactacagg cacgtgccac catgcctgga 87780
taattttttg tatctttaat agagacgggg tttcactgtg ttagccagga tggactcgat 87840
ctcctgacct cgtgatctac ccgcctcggc ctcccagtg gattacaggc gtgagccaca 87900
acaccagcc aatttttgta gtttttagtag aggcagggtt tcaccatgtt gccagggtc 87960
gtctggaact cctggactca agcaatctgc ccacctcggc ctcccagagt gttggagtta 88020
caggcttgag ccaccatgcc cggctgaatt tcttgattct ttaatggctg gtttttgttt 88080
tcttttgatt ttagaaggcc ttaatttgaa gacctttaat ttaatttaatt ttaattaatt 88140
taatttatct gaagacagtt tgaggagaa caaaatgtcc tcacagttat tttttcatta 88200
tttagttga atatatctat aatatagttt atgattacaa ccatttttaa gtgtaagcac 88260
attcacctcg acgtgcaacg atcaccactg tccatctcca gaattttttt atcttcctta 88320
attgaaatta tgtaccatt aaataataat tccccattcc tgctccttt cagcccctgg 88380
gaaccactat tctactttct gtctctttta atttgaccac tctagaaacc ttatataagt 88440
ggaatcatat aatcattgtc cttttgtgct tgcttctttc acttatcaca aagtgttcaa 88500
ggtttatcca tggattgca tgtgtcagaa tttttttttt tttttttttt tttttgagat 88560
ggagttttgc tcttgttgcc caggctggag tgcagtgggtg cagtctcagc ttactgcaac 88620
ctccaccacc cgggtcaag ccattctcct gcctcagcct cccaagtagc tgggattaca 88680
gggtgtcgacc atcatgcca gctaattttt tttttttttt gtatttttag tagagctggg 88740
gtttcaccat gttggccagg ctggtctcaa actcctgacc tcaggtgatc ctcccgctc 88800
ggcttcccaa agtgctggga ttacaggcgg gagccacctc acccagccag aatttccttc 88860

cttttaaatgt tggaaaacat cccattgtat gtctatgcc aatttttggtt atctgttcat 88920
ctgttgatgg acacgtgtgt tgcttccacc tttcggctat tgtgagtaat gctgccatga 88980
acataggtgt acagatatct ctttgaaacc ttgttttcaa ctcttttggg tatataacca 89040
gcaggggaat tgctggatta tcttcacagt tcttaaccat ttagtgtggg tcagcttctg 89100
ggtggataga gtaatggaag gagaagaatg atgttgctga attggctgtt tgatgatttt 89160
tttttttttt tttgagacag acttttgttc ttgttgccca gactggagtg caatggtgcc 89220
- atctcggtc actgcaacct ccacctctta agttccagcg attctcctgc ctcagcctct 89280
cgggtagccg tgattacagg cgcaccacc catgccagc taattttgta ttttgaatag 89340
agacgggggtt tcaccatgtt ggtcaggctg gtctcgaact cctgacctca ggcgatccac 89400
cctcatccgc ctcccaaagt gctgggatta cagacatgag ccaccacacc tggccctgtt 89460
tgatgatttt tgttctatag gagcggcaca aagagaagag gacagaacaa aagtaaccaa 89520
atctattctc tctgaggaag atcatatgta gagagcagag gtctgtgtgt gtgaaagaaa 89580
acggggaaga ggatgaaaat gtccagagtg gtgagctctg ctaggccctg gaatgaagct 89640
gagatgctgg aagcgctaag ttctctctag tgggagaaaa cccactgtgg aaagctaata 89700
atttgatgta gaacctcacc aacgaccagg aagaagcaat cagtgccag ctaggctaaa 89760
ctgggcctgc gatagggtgt gagtagggcc agcttctctg aagtgaacc tgtgcaatgg 89820
cagtagggcc catgcttgg ggtttaatgc gtggcagtc gtgccttgaa actcttaata 89880
attgtatctt tgaatttgtg ctttgtaagt gaagtttgat gggacctgga gcatgcatag 89940
gggcaggaag ggagggtagg ggggcttggg gccacagctc atgtggaatc ccacctgcca 90000
ggtgccacct cacagcgccc agacaggttc ttagcttccc actgtctgcc ccgtggagcc 90060
ccaggcttta ctcagcctcc ctttctctgc cttgctcagc aaccattgct acccctaacc 90120
ccagcagggg attgagtgga gcacggggat gatcagcatt ggatgtgagc tcccagaagc 90180
ctctcagggg ggggcaggca gctgacctg cattgggcta gaagtgccac agcaccttca 90240
gcaggtgact aggcctatcc aggcacatcc tagtgtagag gttgcaatac acttgcaagt 90300
ttcccatcaa ctgtgggttt gggtagagga cctgtggaaa ggggagattc ctggcttgac 90360
ttcccttctc ccagccaggg cagcatata aattagaagt tggcaggaga ggaattcggc 90420
agccatgggt tccaggataa caaatagcta tagccaggc agcagagatt cccagaaggt 90480
ccttctctcc caccaccca ctgacacata caccaccca ccaccaccac caccaaagcc 90540
tgtttctca gctgggcatg aacacttcca gctaaaagtg gcctttgtga attttgctc 90600
ttgctctgtg tacacattct aaagggaaca agtctgtttt gctgcagggt gaggccaga 90660
atgcggcctg ggaaaggcta acagggcaca gtctttgatg gtgagcaagc ctggggtggg 90720
tagctgaggg gattgggagg tatacctctt acccttgggt cagagagatg tgggttagaa 90780
ccccagcagt cagtgtttta ttctattcta ttctattcta ttctattcta attttttga 90840
gacagagtct cagtctatca cccaggctgg tgtgcagtgg tgtgatctca gctcactgca 90900
acctccgct cctgggttca agcgattctc gtgcctcagc ctcccaagta gctgggatta 90960
caggcatgtg ccactatgct cggctaattt ttgtattctt agtagagagg gggttttgcc 91020
atgttggcca gactggtctc gaactcctga cctcagggtga tccacctacc tcagcctccc 91080
aaagtgtgg gattacagat gtgagccacc acaccgggc cccagcagtc agtattagt 91140
gcagatttta gattccttca cctctcagcc tcagtttctt cattggaaca ttggagaaaa 91200
tactggtgcc taatttaggg ggtcatgaaa attagtgag accatctctg cagaaatgtt 91260
gagcacagtt cccagcacac agtcgggtggc cagtgattgg ctgctgctgc tgctgctgct 91320
atcatccatg tgtgtcctag gattcctcat agaggggggtc accaacaatga tcaactggcc 91380
attgtccaga tccaggcttt ggcctggcag actcaaactc ctgattccta ttgactcaga 91440
cagtgtatct ttcttccaga ggcaaatacc cctaaatgga tgaaggaaac ctatcaaagt 91500

atagcaccgg agaaaagatc cccctagaag aggcctctct cacctctgag aggggtatgt 91560
actctgggca ggtcccagaa gcaggagcta aaggtagcct ttgtccattc aggggtttttt 91620
tttggtggat tctggctcca ggccctggac tcatgaggtt ttctctggaa cgctctggtg 91680
tcgagcagag tgtgaagtgt tagcttggga tcttccagta tctgtcctgt cagggatgtc 91740
tagtggtcct gaagtccctg ggctgggacg aagttagctc ttgttgctgg gcataggcat 91800
agcttgacc aggatgaggc catggagtca gccaaagctct ctcaattcct gacagacaga 91860
- - gccccagg gtcacctggg ctgggaccag cactgttttg tgatatattc atttctgtac 91920
aggtagacca ggtaaaaaat aataaggtgt cctagagaca cctgggcctc tgctgtctga 91980
gctccggatt tagcctcaca tcttctcaat atgcaaagga ccctgcagtt actaaagcat 92040
ttttaacacc tgcactcctc actgacaccc agctcctccc caataagcct ttgcatgggt 92100
ctgcccagaga ccctcttggg tactgagact tccccactac ctactcccac ttaagctgca 92160
taggtaggtt tgggtgactt tctcaatgcc acagccttac ataaagctct tccatcccac 92220
tctacacacc cttccattcc acctgaaaa ccctctcatt gcaccctaca caccctttca 92280
ttctagcctc acatccttcc aatcatccat cacacaattc catttcaccc ttcacaccct 92340
tccattccac cttgaaaacc ctcccattgc accctacaca ccctttcatt ctagcctcac 92400
atccttccat tcatgcatca cacaattcca ttccaccctt cacacccttc cagtccatta 92460
ttcattcaca ccatttcatt ccattcttca cgccattcca ttacaacctt catattcttc 92520
cactccacct tacacacctt atattccacc cttgacactc ttccagtcca ctacatgtcc 92580
ttccgtttct ctcttcacat cttccatttc accctaagca acctcccatt tcacccttca 92640
cacccttcaa ttccaccctt cacaccctc catgacatcc ttcaagctct tccgtgccac 92700
ccttaacatc ctctcattcc acttttctact ctctggctct tccatgtcct tccattctgc 92760
cttctgcaac cttccattcc attcttcaca ttctttctact ccacctaaac catccttcca 92820
ttccaccctc cacaccttct aatttcaccc ttcatatact tccaccgggc ttggcgagc 92880
ggctcatgcc agtaatccca gcagtttggg aggccgaggc aggtggatca cttgaggtca 92940
ggaagttcaa aaccagcttg gcccatgttg tgaaaccctg tctctactgc aaatacaaaa 93000
aattagctgg gcatgatggg gtgggcctgt aatcccaggc actcagaggc tgaggcagga 93060
gaatcgcttg aacttgggag gcagaggttg cagtgaagcc agaccgctcc actgactcc 93120
agcctggaca acagagcaag acccctctc aaaaaaaaaa aaaaaaggaa ctgcaccatt 93180
ttacattctc aacatcacgg atgaggggtc catcttctcc tcatccagcc aactggaagc 93240
ccttttagct gaggtggtta agctgtgaga accagagttt gctgctgccg ttatttactg 93300
catcattcat tcagcaaaaa cctgagtacc taccactacc tagtaggctc tggccatgca 93360
agaagtcctt ggcaacgctg taggatagag aggaacagca ccctggttac agcgtttcag 93420
catcctggcc ttggttcacc cgggggcctt tcaattgcag gaggcagga gttctctgat 93480
ggcagtttga gttggatttg ctgcaactaa caaagccggc cagtggacct ctccaatcta 93540
ctgggactca aataaatcca agtgattgtt ctccctccat tccaggaagg aacaccagcc 93600
agccgtggaa cctcaggtgc aacagagacg ccaggagata ctagtgccca gcagcctgcg 93660
gcagtaccaa tgaagccaga gagggccttg tggatgacaa ggaggcctga gtagaccgca 93720
ggtgggtctg agaaatgggc ttaggtgagg caggtctttg aaggatttgt tcttaatcat 93780
atgcgagatg ctcaaaaggc tggatgcctg cttttgtggg tgaagagcaa gaagagaaaa 93840
caggttgtag acatacagat gcagatggag agacagagaa aaaaaaggaa gaaggcagag 93900
aaatgcacca attcttgagc tgtattatct ctggaccctg ggattgtggg aggcctttatt 93960
ttactactga ttttgcctac actgttttct caatttctag ttttctacaa agatgatgtg 94020
ttagcttttt cacgcattaa gattaaaatt taaaacagac cacacaataa atatttcttt 94080
taaaaggaga aatatgccct ggggaagctc cccacgcagc tgagagcctg gctggttgca 94140

tttcggcttc ttaggtgcca agcctactag tgccccgggg tcccagccag cggctcgcgt 94200
ttcctcccc ttgcgccgcc agtctggttg ccatggagac aaaccttgct gcgcagagac 94260
tgccgagccg caggcagcgg agctggaacc cggcgagcca gcctctgcaa caggctgggg 94320
gcggaaggag gagccaggcg aagcggcgcc tcagctgaga ggaccggcgg accctgcaga 94380
ggccccctgc ccctctggct cggccccac cggggtcgct agaaatacag ccgtagcccc 94440
gcccaccgcc cactgcgctc tgacccagac cgggctgacc cacctaccg cgatcctgcc 94500
- catggctgac gggctctttc ggcgcagacc ctggggtctc gagcagattc gcccggaccc 94560
cgagtccgaa ggcctgtttg acaagcctcc cccggaagac cctcccgctg cccgcggggc 94620
caggctcggcg tcggccgcgg gcaagaaggc tggtcggcgc gcgggcggga gggcgagg 94680
gggccgcgcc gggcagcccc cgaaggccgc atcgcgcccc ccgccaaga aggaggcgcc 94740
tccactggac gagggctgct atctcgacca tttccgcac ctctccatct tcactacgc 94800
agccatcgcc ttctccatca cctcctgcat ctttacctat atccatttac agcttgccctg 94860
agtggccagc gcgggacggg gtgggcgcag gaccgagcgg ggagggaaag ggaaaacggg 94920
gctcggcatt ttgtgtttta gaacagcgct gcacccccct catgtagctt tcgatgcttg 94980
tttctttccg tctttgttgt cactatcttt gtctatcagt acgaaagtac aaagtagctg 95040
ccggcaatga aataggggtg ctgtttgcac ctgcaggtta ggggtggagg cgtttagaat 95100
tttggggtgt gattgagccc cgtttataat tagaatgccc ctggaccct accactctgt 95160
gacgtggggg cagcgcagc gatcccatca ttttgtgtt ggggagctca gagtgcgcc 95220
aatcttgga tctttaagg atgagccaga ccagaccg cggccttcta gagagggtcc 95280
ggcagggagg gtcggcgccc tggccgggg tggccggag ccctgtgat ctgcatcgcc 95340
cccaggagga gccagctgtg ccccagagtt ggcgcggccg agagaggaca agagcgcga 95400
gcaggcgaag ctggaggcg ggactcggta agtggcgctc gtcggggtgt cgtgctgcgc 95460
ccccaggggc tccggctgac cagactgtg tgttttccct gccttagact ttgttgtcgc 95520
tgcccgagg agtcgagact ggtacccgga ggagctgtct caccaggaga ccacgtcctg 95580
gaagtgtccg ggactcgcgg gacctgtggc tgcagacccc gccggcacgc aggccagag 95640
ctggcgcact cctgaggatg agactctggg ggccctagcc ggggtccacg ggagggtgt 95700
ccttggggac tctaggatgg cttcgttctg gcccggtca cttctggagc tgtgagacc 95760
aagacaaaag gggctgaggg atttctcatt gacaagagtt cgtgcgggaa aaccacctga 95820
tccctagga tttgtcatct taagactcaa aaggcttaat accaggaacc accttgcaa 95880
gatatttacc caccggccat ctctgtttac tcatgaatgt taaatgttaa aacgcagcgc 95940
tctaaccctg catattattt acttgcaa atgtgttaatc tgtaattgtg atgcctctga 96000
tggaataaat tatcttttct agtctcctct atattcagtt ctccattaat ttccaactct 96060
tctaacttct tctgccaac ttcctagtct gctccacagc atccccactg tccctccaaa 96120
acagacttaa tcctgtgacc cagcattcca aaatatagcc tctccctcca ctaaatagct 96180
acaaggccct tcaatggcat ctttctccac gtcaggctct cacaacatgc cagtatccga 96240
gtctaccatc cttatggca gatcagccac tatccattg tggcattacc tactgccct 96300
cagtatttctg tttccacttg cctccatttt gaagaccgag tacggcccc cagctaagct 96360
ctggaatttt cccctgggt ctttacaac gccctgttt ccaatatcag ggccttgcca 96420
tttctcagtt ctgacttccc ataatcccat atcactctgt gccttgatat cttgccccg 96480
gacacttggt tcggtgccac aagtatgaca tccacggctt cccaatgtca gcctgtgctt 96540
tacaatcaca ctttactaca acaattcccc cacagcaatc ggtggcacta tttcccaaaa 96600
ttaggtctcc aggcgggct cgttggctca cgcctgtaat cccacactt 96649

<210> 11

<211> 6531

<212> DNA

<213> Homo sapiens

<220>

<400> 11

gccccagggc ctggagaggt ctgaagaaac ctgggagcca gcagcccggg gtcctactct 60

gggttctgaa agccattcc ctgctctgcg gtcctccca cccacctct tctcagcctt 120

gcagctcaag ggttgatctc aggagtccag gaccaggag agggaagaat ctgaggaaca 180

cagaacagtg agcgttgccc acaccccatc tcccgtcacc acatctcccc tcacctcac 240

cctccctgcc tggccctgga ccccatccca ggacctcct atcagctgac ttcttcagct 300

gtcttgaggg cccctctggg ctctccctc cctgggcttt tctaccact cccctctat 360

cggcgtctat ctgtaggtgc cctgggattt ataaaactgg gttccgaatg ctgaataaga 420

gacggtaaga gccaaggcaa aggacagcac tgttctctgc ctgcctgata cctcaccac 480

ctgggaacat cccccagaca cctcttaac tccgggacag agatggctgg cggagcctgg 540

ggccgctgg cctgttactt ggagttcctg aagaaggagg agctgaagga gttccagctt 600

ctgctcgcca ataaagcgca ctccaggagc tcttcgggtg agacaccgc tcagccagag 660

aagacgagtg gcatggaggt ggcctcgtac ctggtggctc agtatgggga gcagcgggcc 720

tgggacctag cctccatac ctgggagcag atggggctga ggtcactgtg cgccaagcc 780

caggaagggg caggccactc tccctcattc ccctacagcc caagtgaacc ccacctgggg 840

tctcccagcc aaccacctc caccgcagtg ctaatgcct ggatccatga attgccggcg 900

gggtgcaccc agggctcaga gagaagggtt ttgagacagc tgctgacac atctggacgc 960

cgctggagag aaatctctgc ctactcctc taccaagctc ttccaagctc ccagaccat 1020

gagtctccaa gccaggagtc acccaacgcc cccacatcca cagcagtgct ggggagctgg 1080

ggatccccac ctcagcccag cctagcaccc agagagcagg aggtccttg gacccaatgg 1140
cctctggatg aaacgtcagg aatttactac acagaaatca gagaaagaga gagagagaaa 1200
tcagagaaaag gcaggcccc atgggcagcg gtggtaggaa cgccccaca ggcgcacacc 1260
agcctacagc cccaccacca cccatgggag ccttctgtga gagagagcct ctgttcaca 1320
tggccctgga aaaatgagga ttttaaccaa aaattcacac agctgctact tctacaaaga 1380
cctcacccca gaagccaaga tcccctggtc aagagaagct ggcctgatta tgtggaggag 1440
aatcgaggac atttaattga gatcagagac ttatttggcc caggcctgga tacccaagaa 1500
cctcgcatag tcatactgca gggggctgct ggaattggga agtcaacact ggccaggcag 1560
gtgaaggaag cctgggggag aggccagctg tatggggacc gcttcagca tgtcttctac 1620
ttcagctgca gagagctggc ccagtcgaag gtggtgagtc tcgctgagct catcgaaaa 1680
gatgggacag ccactccggc tcccattaga cagatcctgt ctaggccaga gcggctgctc 1740
ttcatcctcg atggtgtaga tgagccagga tgggtcttgc aggagccgag ttctgagctc 1800
tgtctgcact ggagccagcc acagccggcg gatgcactgc tgggcagttt gctggggaaa 1860
actatacttc ccgaggcatc cttcctgac acggctcgga ccacagctct gcagaacctc 1920
attccttctt tggagcaggc acgttgggta gaggtcctgg ggttctctga gtccagcagg 1980
aaggaatatt tctacagata tttcacagat gaaaggcaag caattagagc ctttaggttg 2040
gtcaaataca acaaagagct ctgggccctg tgtcttgtgc cctgggtgct ctggctggcc 2100
tgcacttgcc tgatgcagca gatgaagcgg aaggaaaaac tcacactgac ttccaagacc 2160
accacaaccc tctgtctaca ttaccttgcc caggctctcc aagctcagcc attgggaccc 2220
cagctcagag acctctgctc tctggctgct gagggcatct ggcaaaaaaa gacccttttc 2280
agtccagatg acctcaggaa gcatgggtta gatggggcca tcattctccac cttcttgaag 2340
atgggtattc ttcaagagca cccatccct ctgagctaca gcttcattca cctctgtttc 2400

caagagttct ttgcagcaat gtcctatgtc ttggaggatg agaaggggag aggtaaacat 2460
tctaattgca tcatagattt ggaaaagacg ctagaagcat atggaataca tggcctgttt 2520
ggggcatcaa ccacacgttt cctattgggc ctgttaagtg atgaggggga gagagagatg 2580
gagaacatct ttcactgccg gctgtctcag gggaggaacc tgatgcagtg ggtcccgtcc 2640
ctgcagctgc tgctgcagcc acactctctg gagtccctcc actgcttgta cgagactcgg 2700
aacaaaacgt tcctgacaca agtgatggcc catttcgaag aaatgggcat gtgtgtagaa 2760
acagacatgg agctcttagt gtgcactttc tgcattaaat tcagccgcca cgtgaagaag 2820
cttcagctga ttgagggcag gcagcacaga tcaacatgga gccccaccat ggtagtcctg 2880
ttcaggtggg tcccagtcac agatgcctat tggcagattc tcttctccgt cctcaaggtc 2940
accagaaacc tgaaggagct ggacctaatg ggaaactcgc tgagccactc tgcagtgaag 3000
agtctttgta agaccctgag acgccctcgc tgcctcctgg agaccctgcg gttggctggc 3060
tgtggcctca cagctgagga ctgcaaggac cttgcctttg ggctgagagc caaccagacc 3120
ctgaccgagc tggacctgag cttcaatgtg ctcacggatg ctggagccaa acacctttgc 3180
cagagactga gacagccgag ctgcaagcta cagcgactgc agctgggtcag ctgtggcctc 3240
acgtctgact gctgccagga cctggcctct gtgcttagtg ccagccccag cctgaaggag 3300
ctagacctgc agcagaacaa cctggatgac gttggcgtgc gactgctctg tgaggggctc 3360
aggcatcctg cctgcaaact catacgctg gggctggacc agacaactct gagtgatgag 3420
atgaggcagg aactgagggc cctggagcag gagaaacctc agctgctcat cttcagcaga 3480
cggaaccaa gtgtgatgac ccctactgag ggcctggata cgggagagat gagtaatagc 3540
acatcctcac tcaagcggca gagactcgga tcagagaggc cggcttccca tgttgctcag 3600
gctaatttca aactcctgga cgtgagcaag atcttcccaa ttgctgagat tgcagcagag 3660
gaaagctccc cagaggtagt accggtggaa ctcttgtgca tgccttctcc tgctctcaa 3720

ggggacctgc atacgaagcc tttggggact gacgatgact tctggggccc cacggggcct 3780
gtggctactg aggtagtga caaagaaaag aacttgtacc gagttcactt ccctgtagct 3840
ggctcctacc gctggcccaa cacgggtctc tgctttgtga tgagagaagc ggtgaccgtt 3900
gagattgaat tctgtgtgtg ggaccagttc ctgggtgaga tcaaccaca gcacagctgg 3960
atggtggcag ggctctgct ggacatcaag gctgagcctg gagctgtgga agctgtgcac 4020
ctccctcact ttgtggctct ccaagggggc catgtggaca catccctgtt ccaagtggcc 4080
cactttaag aggaggggat gctcctggag aagccagcca gggaggagct gcacacata 4140
gttctgaaa acccagctt ctcccccttg ggagtcctcc tgaaaatgat ccataatgcc 4200
ctgcgttca ttccgctcac ctctgtggtg ttgctttacc accgctcca tcctgaggaa 4260
gtcaccttc acctctacct gatcccaagt gactgctcca ttcggaaggc catagatgat 4320
ctagaaatga aattccagtt tgtgcgaatc cacaagccac cccgctgac cccactttat 4380
atgggctgtc gttacactgt gtctgggtct gggtcagga tgctggaaat actccccaag 4440
gaactggagc tttgctatcg aagccctgga gaagaccagc tgttctcgga gttctacgtt 4500
ggccacttgg gatcagggat caggctgcaa gtgaaagaca agaaagatga gactctggtg 4560
tgaggaggcct tggtgaaacc aggagatctc atgcctgcaa ctactctgat ccctccagcc 4620
cgcatagccg taccttcacc tctggatgcc ccgagttgc tgcactttgt ggaccagtat 4680
cgagagcagc tgatagcccg agtgacatcg gtggaggttg tcttgacaa actgcatgga 4740
caggtgctga gccaggagca gtacgagagg gtgctggctg agaacacgag gccagccag 4800
atgcggaagc tggtcagctt gagccagtcc tgggaccgga agtgcaaaga tggactctac 4860
caagccctga aggagacca tctcacctc attatggaac tctgggagaa gggcagcaaa 4920
aagggactcc tgccactcag cagctgaagt atcaacacca gcccttgacc cttgagtcct 4980
ggctttggct gacccttctt tgggtctcag tttctttctc tgcaaacaag ttgccatctg 5040

gtttgccttc cagcactaaa gtaatggaac tttgatgatg cctttgctgg gcattatgtg 5100
tccatgccag ggatgccaca gggggcccca gtccaggtgg cctaacagca tctcagggaa 5160
tgtccatctg gagctggcaa gaccctgca gacctcatag agcctcatct ggtggccaca 5220
gcagccaagc ctagagccct ccgcatcca tccaggcgca aagaggaata ggagggacat 5280
ggaaccattt gcctctggct gtgtcacagg gtgagcccca aaattggggg tcagcgtggg 5340
aggccacgtg gattcttggc tttgtacagg aagatctaca agagcaagcc aacagagtaa 5400
agtggaagga agttttattca gaaaataaag gagtatcaca gctcttttag aatttgtcta 5460
gcaggctttc cagtttttac cagaaaaccc ctataaatta aaaatttttt acttaaattt 5520
aagaattaaa aaaatacaaa aaagaaaaaa tgaaaataaa ggaataagaa gttacctacg 5580
aaggaacacc agccagccgt ggaacctcag gtgcaacaga gacgccagga gatactagtg 5640
cccagcagcc tgcggcagta ccaatgaagc cagagagggc ttggtggatg acaaggaggc 5700
ctgagtagac cgcaggtggg tctgagaaat gggcttaggt gaggcaggtc tttgaaggat 5760
ttgttcttaa tcatatgcga gatgctcaa aggctggatg cctgcttttg tgggtgaaga 5820
gcaagaagag aaaacagggt gtacacatac agatgcagat ggagagacag agaaaaaaaa 5880
ggaagaaggc agagaaatgc accaattctt gagctgtatt atctctggac cttgggattg 5940
tgggaggctt tattttacta ctgattttgc ctacactggt ttctcaattt ctagttttct 6000
acaaagatga tgtgttagct ttttcacgca ttaagattaa aatttaaac agaccacaca 6060
ataaatattt cttttaaaag gagaaatatg ccctggggaa gctccccacg cagctgagag 6120
cctggctggg tgcatttcgg cttcttaggt gccaaacct ctagtgcccc ggggtcccag 6180
ccagcggctc gcgtttcctc ccccttgccg cgccagtctg gttgccatgg agacaaacct 6240
tgctgcgcag agactgccga gccgcaggca gcggagctgg aaccggcgga gccagcctct 6300
gcaacaggct gggggcgga ggaggagcca ggcgaagcgg cgcctcagct gagaggaccg 6360

gcggaccctg cagaggcccc ctgcccctct ggctccgccc ccaccgggt cgctagaaat 6420
 acagccgtag ccccgccac cgcccactgc gctctgaccc agaccgggt gaccaccta 6480
 cccgcgatcc tgccatggc tgacgggctc ttccggcgca gaccctgggg t 6531

<210> 12
 <211> 5100
 <212> DNA
 <213> Homo sapiens

<220>

<220>
 <221> CDS
 <222> (160)...(4449)

<400> 12
 tgggagccag cagcccggg gctccactct gggttctgaa agccattcc ctgctctgcg 60
 gctcctccca cccacactct tctcagcctt gcagctcaag gggtgatctc aggagtccag 120
 gaccaggag agggagaat ctgaggaaca cagaacaag atg gct ggc gga gcc 174
 Met Ala Gly Gly Ala
 1 5
 tgg ggc cgc ctg gcc tgt tac ttg gag ttc ctg aag aag gag gag ctg 222
 Trp Gly Arg Leu Ala Cys Tyr Leu Glu Phe Leu Lys Lys Glu Glu Leu
 10 15 20
 aag gag ttc cag ctt ctg ctc gcc aat aaa gcg cac tcc agg agc tct 270
 Lys Glu Phe Gln Leu Leu Leu Ala Asn Lys Ala His Ser Arg Ser Ser
 25 30 35
 tcg ggt gag aca ccc gct cag cca gag aag acg agt ggc atg gag gtg 318
 Ser Gly Glu Thr Pro Ala Gln Pro Glu Lys Thr Ser Gly Met Glu Val
 40 45 50
 gcc tcg tac ctg gtg gct cag tat ggg gag cag cgg gcc tgg gac cta 366
 Ala Ser Tyr Leu Val Ala Gln Tyr Gly Glu Gln Arg Ala Trp Asp Leu
 55 60 65

| | |
|---|-----|
| gcc ctc cat acc tgg gag cag atg ggg ctg agg tca ctg tgc gcc caa | 414 |
| Ala Leu His Thr Trp Glu Gln Met Gly Leu Arg Ser Leu Cys Ala Gln | |
| 70 75 80 85 | |
| gcc cag gaa ggg gca ggc cac tct ccc tca ttc ccc tac agc cca agt | 462 |
| Ala Gln Glu Gly Ala Gly His Ser Pro Ser Phe Pro Tyr Ser Pro Ser | |
| 90 95 100 | |
| gaa ccc cac ctg ggg tct ccc agc caa ccc acc tcc acc gca gtg cta | 510 |
| Glu Pro His Leu Gly Ser Pro Ser Gln Pro Thr Ser Thr Ala Val Leu | |
| 105 110 115 | |
| atg ccc tgg atc cat gaa ttg ccg gcg ggg tgc acc cag ggc tca gag | 558 |
| Met Pro Trp Ile His Glu Leu Pro Ala Gly Cys Thr Gln Gly Ser Glu | |
| 120 125 130 | |
| aga agg gtt ttg aga cag ctg cct gac aca tct gga cgc cgc tgg aga | 606 |
| Arg Arg Val Leu Arg Gln Leu Pro Asp Thr Ser Gly Arg Arg Trp Arg | |
| 135 140 145 | |
| gaa atc tct gcc tca cac ctc tac caa gct ctt cca agc tcc cca gac | 654 |
| Glu Ile Ser Ala Ser His Leu Tyr Gln Ala Leu Pro Ser Ser Pro Asp | |
| 150 155 160 165 | |
| cat gag tct cca agc cag gag tca ccc aac gcc ccc aca tcc aca gca | 702 |
| His Glu Ser Pro Ser Gln Glu Ser Pro Asn Ala Pro Thr Ser Thr Ala | |
| 170 175 180 | |
| gtg ctg ggg agc tgg gga tcc cca cct cag ccc agc cta gca ccc aga | 750 |
| Val Leu Gly Ser Trp Gly Ser Pro Pro Gln Pro Ser Leu Ala Pro Arg | |
| 185 190 195 | |
| gag cag gag gct cct ggg acc caa tgg cct ctg gat gaa acg tca gga | 798 |
| Glu Gln Glu Ala Pro Gly Thr Gln Trp Pro Leu Asp Glu Thr Ser Gly | |
| 200 205 210 | |
| att tac tac aca gaa atc aga gaa aga gag aga gag aaa tca gag aaa | 846 |
| Ile Tyr Tyr Thr Glu Ile Arg Glu Arg Glu Arg Glu Lys Ser Glu Lys | |
| 215 220 225 | |
| ggc agg ccc cca tgg gca gcg gtg gta gga acg ccc cca cag gcg cac | 894 |
| Gly Arg Pro Pro Trp Ala Ala Val Val Gly Thr Pro Pro Gln Ala His | |
| 230 235 240 245 | |

agc agc cta cag ccc cac cac cac cca tgg gag cct tct gtg aga gag 942
 Ser Ser Leu Gln Pro His His His Pro Trp Glu Pro Ser Val Arg Glu
 250 255 260

agc ctc tgt tcc aca tgg ccc tgg aaa aat gag gat ttt aac caa aaa 990
 Ser Leu Cys Ser Thr Trp Pro Trp Lys Asn Glu Asp Phe Asn Gln Lys
 265 270 275

ttc aca cag ctg cta ctt cta caa aga cct cac ccc aga agc caa gat 1038
 Phe Thr Gln Leu Leu Leu Leu Gln Arg Pro His Pro Arg Ser Gln Asp
 280 285 290

ccc ctg gtc aag aga agc tgg cct gat tat gtg gag gag aat cga gga 1086
 Pro Leu Val Lys Arg Ser Trp Pro Asp Tyr Val Glu Glu Asn Arg Gly
 295 300 305

cat tta att gag atc aga gac tta ttt ggc cca ggc ctg gat acc caa 1134
 His Leu Ile Glu Ile Arg Asp Leu Phe Gly Pro Gly Leu Asp Thr Gln
 310 315 320 325

gaa cct cgc ata gtc ata ctg cag ggg gct gct gga att ggg aag tca 1182
 Glu Pro Arg Ile Val Ile Leu Gln Gly Ala Ala Gly Ile Gly Lys Ser
 330 335 340

aca ctg gcc agg cag gtg aag gaa gcc tgg ggg aga ggc cag ctg tat 1230
 Thr Leu Ala Arg Gln Val Lys Glu Ala Trp Gly Arg Gly Gln Leu Tyr
 345 350 355

ggg gac cgc ttc cag cat gtc ttc tac ttc agc tgc aga gag ctg gcc 1278
 Gly Asp Arg Phe Gln His Val Phe Tyr Phe Ser Cys Arg Glu Leu Ala
 360 365 370

cag tcc aag gtg gtg agt ctc gct gag ctc atc gga aaa gat ggg aca 1326
 Gln Ser Lys Val Val Ser Leu Ala Glu Leu Ile Gly Lys Asp Gly Thr
 375 380 385

gcc act ccg gct ccc att aga cag atc ctg tct agg cca gag cgg ctg 1374
 Ala Thr Pro Ala Pro Ile Arg Gln Ile Leu Ser Arg Pro Glu Arg Leu
 390 395 400 405

ctc ttc atc ctc gat ggt gta gat gag cca gga tgg gtc ttg cag gag 1422
 Leu Phe Ile Leu Asp Gly Val Asp Glu Pro Gly Trp Val Leu Gln Glu
 410 415 420

ccg agt tct gag ctc tgt ctg cac tgg agc cag cca cag ccg gcg gat 1470
 Pro Ser Ser Glu Leu Cys Leu His Trp Ser Gln Pro Gln Pro Ala Asp
 425 430 435

gca ctg ctg ggc agt ttg ctg ggg aaa act ata ctt ccc gag gca tcc 1518
 Ala Leu Leu Gly Ser Leu Leu Gly Lys Thr Ile Leu Pro Glu Ala Ser
 440 445 450

ttt ctg atc acg gct cgg acc aca gct ctg cag aac ctc att cct tct 1566
 Phe Leu Ile Thr Ala Arg Thr Thr Ala Leu Gln Asn Leu Ile Pro Ser
 455 460 465

ttg gag cag gca cgt tgg gta gag gtc ctg ggg ttc tct gag tcc agc 1614
 Leu Glu Gln Ala Arg Trp Val Glu Val Leu Gly Phe Ser Glu Ser Ser
 470 475 480 485

agg aag gaa tat ttc tac aga tat ttc aca gat gaa agg caa gca att 1662
 Arg Lys Glu Tyr Phe Tyr Arg Tyr Phe Thr Asp Glu Arg Gln Ala Ile
 490 495 500

aga gcc ttt agg ttg gtc aaa tca aac aaa gag ctc tgg gcc ctg tgt 1710
 Arg Ala Phe Arg Leu Val Lys Ser Asn Lys Glu Leu Trp Ala Leu Cys
 505 510 515

ctt gtg ccc tgg gtg tcc tgg ctg gcc tgc act tgc ctg atg cag cag 1758
 Leu Val Pro Trp Val Ser Trp Leu Ala Cys Thr Cys Leu Met Gln Gln
 520 525 530

atg aag cgg aag gaa aaa ctc aca ctg act tcc aag acc acc aca acc 1806
 Met Lys Arg Lys Glu Lys Leu Thr Leu Thr Ser Lys Thr Thr Thr Thr
 535 540 545

ctc tgt cta cat tac ctt gcc cag gct ctc caa gct cag cca ttg gga 1854
 Leu Cys Leu His Tyr Leu Ala Gln Ala Leu Gln Ala Gln Pro Leu Gly
 550 555 560 565

ccc cag ctc aga gac ctc tgc tct ctg gct gct gag ggc atc tgg caa 1902
 Pro Gln Leu Arg Asp Leu Cys Ser Leu Ala Ala Glu Gly Ile Trp Gln
 570 575 580

aaa aag acc ctt ttc agt cca gat gac ctc agg aag cat ggg tta gat 1950
 Lys Lys Thr Leu Phe Ser Pro Asp Asp Leu Arg Lys His Gly Leu Asp
 585 590 595

ggg gcc atc atc tcc acc ttc ttg aag atg ggt att ctt caa gag cac 1998
 Gly Ala Ile Ile Ser Thr Phe Leu Lys Met Gly Ile Leu Gln Glu His
 600 605 610

ccc atc cct ctg agc tac agc ttc att cac ctc tgt ttc cag gag ttc 2046
 Pro Ile Pro Leu Ser Tyr Ser Phe Ile His Leu Cys Phe Gln Glu Phe
 615 620 625

ttt gca gca atg tcc tat gtc ttg gag gat gag aag ggg aga ggt aaa 2094
 Phe Ala Ala Met Ser Tyr Val Leu Glu Asp Glu Lys Gly Arg Gly Lys
 630 635 640 645

cat tct aat tgc atc ata gat ttg gaa aag acg cta gaa gca tat gga 2142
 His Ser Asn Cys Ile Ile Asp Leu Glu Lys Thr Leu Glu Ala Tyr Gly
 650 655 660

ata cat ggc ctg ttt ggg gca tca acc aca cgt ttc cta ttg ggc ctg 2190
 Ile His Gly Leu Phe Gly Ala Ser Thr Thr Arg Phe Leu Leu Gly Leu
 665 670 675

tta agt gat gag ggg gag aga gag atg gag aac atc ttt cac tgc cgg 2238
 Leu Ser Asp Glu Gly Glu Arg Glu Met Glu Asn Ile Phe His Cys Arg
 680 685 690

ctg tct cag ggg agg aac ctg atg cag tgg gtc ccg tcc ctt cag ctg 2286
 Leu Ser Gln Gly Arg Asn Leu Met Gln Trp Val Pro Ser Leu Gln Leu
 695 700 705

ctg ctg cag cca cac tct ctg gag tcc ctc cac tgc ttg tat gag act 2334
 Leu Leu Gln Pro His Ser Leu Glu Ser Leu His Cys Leu Tyr Glu Thr
 710 715 720 725

cgg aac aaa acg ttc ctg aca caa gtg atg gcc cat ttc gaa gaa atg 2382
 Arg Asn Lys Thr Phe Leu Thr Gln Val Met Ala His Phe Glu Glu Met
 730 735 740

ggc atg tgt gta gaa aca gac atg gag ctc tta gtg tgc act ttc tgc 2430
 Gly Met Cys Val Glu Thr Asp Met Glu Leu Leu Val Cys Thr Phe Cys
 745 750 755

att aaa ttc agc cgc cac gtg aag aag ctt cag ctg att gag ggc agg 2478
 Ile Lys Phe Ser Arg His Val Lys Lys Leu Gln Leu Ile Glu Gly Arg
 760 765 770

| | |
|---|------|
| cag cac aga tca aca tgg agc ccc agc atg gta gtc ctg ttc agg tgg | 2526 |
| Gln His Arg Ser Thr Trp Ser Pro Ser Met Val Val Leu Phe Arg Trp | |
| 775 780 785 | |
| gtc cca gtc aca gat gcc tat tgg cag att ctc ttc tcc gtc ctc aag | 2574 |
| Val Pro Val Thr Asp Ala Tyr Trp Gln Ile Leu Phe Ser Val Leu Lys | |
| 790 795 800 805 | |
| gtc acc aga aac ctg aag gag ctg gac cta agt gga aac tcg ctg agc | 2622 |
| Val Thr Arg Asn Leu Lys Glu Leu Asp Leu Ser Gly Asn Ser Leu Ser | |
| 810 815 820 | |
| cac tct gca gtg aag agt ctt tgt aag acc ctg aga cgc cct cgc tgc | 2670 |
| His Ser Ala Val Lys Ser Leu Cys Lys Thr Leu Arg Arg Pro Arg Cys | |
| 825 830 835 | |
| ctc ctg gag acc ctg cgg ttg gct ggc tgt ggc ctc aca gct gag gac | 2718 |
| Leu Leu Glu Thr Leu Arg Leu Ala Gly Cys Gly Leu Thr Ala Glu Asp | |
| 840 845 850 | |
| tgt aag gac ctt gcc ttt ggg ctg aga gcc aac cag acc ctg acc gag | 2766 |
| Cys Lys Asp Leu Ala Phe Gly Leu Arg Ala Asn Gln Thr Leu Thr Glu | |
| 855 860 865 | |
| ctg gac ctg agc ttc aat gtg ctc atg gat gct gga gcc aaa cac ctt | 2814 |
| Leu Asp Leu Ser Phe Asn Val Leu Met Asp Ala Gly Ala Lys His Leu | |
| 870 875 880 885 | |
| tgc cag aga ctg aga cag ccg agc tgc aag cta cag cga ctg cag ctg | 2862 |
| Cys Gln Arg Leu Arg Gln Pro Ser Cys Lys Leu Gln Arg Leu Gln Leu | |
| 890 895 900 | |
| gtc agc tgt ggc ctc acg tct gac tgc tgc cag gac ctg gcc tct gtg | 2910 |
| Val Ser Cys Gly Leu Thr Ser Asp Cys Cys Gln Asp Leu Ala Ser Val | |
| 905 910 915 | |
| ctt agt gcc agc ccc agc ctg aag gag cta gac ctg cag cag aac aac | 2958 |
| Leu Ser Ala Ser Pro Ser Leu Lys Glu Leu Asp Leu Gln Gln Asn Asn | |
| 920 925 930 | |
| ctg gat gac gtt ggc gtg cga ctg ctc tgt gag ggg ctc agg cat cct | 3006 |
| Leu Asp Asp Val Gly Val Arg Leu Leu Cys Glu Gly Leu Arg His Pro | |
| 935 940 945 | |

| | |
|---|------|
| gcc tgc aaa ctc ata cgc ctg ggg ctg gac cag acg act ctg agt gat | 3054 |
| Ala Cys Lys Leu Ile Arg Leu Gly Leu Asp Gln Thr Thr Leu Ser Asp | |
| 950 955 960 965 | |
| gag atg agg cag gag ctg agg gcc ctg gag cag gag aag cct cag ctg | 3102 |
| Glu Met Arg Gln Glu Leu Arg Ala Leu Glu Gln Glu Lys Pro Gln Leu | |
| 970 975 980 | |
| ctc atc ttc agc aga cgg aaa cca agt gtg atg acc cct att gag ggc | 3150 |
| Leu Ile Phe Ser Arg Arg Lys Pro Ser Val Met Thr Pro Ile Glu Gly | |
| 985 990 995 | |
| ctg gat acg gga gag atg agt aat agc aca tcc tca ctc aag cgg cag | 3198 |
| Leu Asp Thr Gly Glu Met Ser Asn Ser Thr Ser Ser Leu Lys Arg Gln | |
| 1000 1005 1010 | |
| aga ctc gga tca gag agg gcg gct tcc cat gtt gct cag gct aat ctc | 3246 |
| Arg Leu Gly Ser Glu Arg Ala Ala Ser His Val Ala Gln Ala Asn Leu | |
| 1015 1020 1025 | |
| aaa ctc ctg gac gtg agc aag atc ttc cca att gct gag att gca gag | 3294 |
| Lys Leu Leu Asp Val Ser Lys Ile Phe Pro Ile Ala Glu Ile Ala Glu | |
| 1030 1035 1040 1045 | |
| gaa agc tcc cca gag gta gta ccg gtg gaa ctc ttg tgc gtg cct tct | 3342 |
| Glu Ser Ser Pro Glu Val Val Pro Val Glu Leu Leu Cys Val Pro Ser | |
| 1050 1055 1060 | |
| cct gcc tct caa ggg gac ctg cat acg aag cct ttg ggg act gac gat | 3390 |
| Pro Ala Ser Gln Gly Asp Leu His Thr Lys Pro Leu Gly Thr Asp Asp | |
| 1065 1070 1075 | |
| gac ttc tgg ggc ccc acg ggg cct gtg gct act gag gta gtt gac aaa | 3438 |
| Asp Phe Trp Gly Pro Thr Gly Pro Val Ala Thr Glu Val Val Asp Lys | |
| 1080 1085 1090 | |
| gaa aag aac ttg tac cga gtt cac ttc cct gta gct ggc tcc tac cgc | 3486 |
| Glu Lys Asn Leu Tyr Arg Val His Phe Pro Val Ala Gly Ser Tyr Arg | |
| 1095 1100 1105 | |
| tgg ccc aac acg ggt ctc tgc ttt gtg gtg aga gaa gcg gtg acc gtt | 3534 |
| Trp Pro Asn Thr Gly Leu Cys Phe Val Val Arg Glu Ala Val Thr Val | |
| 1110 1115 1120 1125 | |

| | |
|---|------|
| gag att gaa ttc tgt gtg tgg gac cag ttc ctg ggt gag atc aac cca | 3582 |
| Glu Ile Glu Phe Cys Val Trp Asp Gln Phe Leu Gly Glu Ile Asn Pro | |
| 1130 1135 1140 | |
| cag cac agc tgg atg gtg gca ggg cct ctg ctg gac atc aag gct gag | 3630 |
| Gln His Ser Trp Met Val Ala Gly Pro Leu Leu Asp Ile Lys Ala Glu | |
| 1145 1150 1155 | |
| cct gga gcc gtg gaa gct gtg cac ctc cct cac ttt gtg gct ctc caa | 3678 |
| Pro Gly Ala Val Glu Ala Val His Leu Pro His Phe Val Ala Leu Gln | |
| 1160 1165 1170 | |
| ggg ggc cat gtg gac aca tcc ctg ttc caa gtg gcc cac ttt aaa gag | 3726 |
| Gly Gly His Val Asp Thr Ser Leu Phe Gln Val Ala His Phe Lys Glu | |
| 1175 1180 1185 | |
| gag ggg atg ctc ctg gag aag cca gcc agg gtg gag ctg cat cac ata | 3774 |
| Glu Gly Met Leu Leu Glu Lys Pro Ala Arg Val Glu Leu His His Ile | |
| 1190 1195 1200 1205 | |
| gtt ctg gaa aac ccc agc ttt tcc ccc ttg gga gtc ctc ctg aaa atg | 3822 |
| Val Leu Glu Asn Pro Ser Phe Ser Pro Leu Gly Val Leu Leu Lys Met | |
| 1210 1215 1220 | |
| atc cat aat gcc ctg cgc ttc att ccc gtc acc tct gtg gtg ttg ctt | 3870 |
| Ile His Asn Ala Leu Arg Phe Ile Pro Val Thr Ser Val Val Leu Leu | |
| 1225 1230 1235 | |
| tac cac cgc ctc cat cct gag gaa gtc acc ttc cac ctc tac ctg atc | 3918 |
| Tyr His Arg Leu His Pro Glu Glu Val Thr Phe His Leu Tyr Leu Ile | |
| 1240 1245 1250 | |
| cca agt gac tgc tcc att cgg aag gaa ctg gag ctc tgc tat cga agc | 3966 |
| Pro Ser Asp Cys Ser Ile Arg Lys Glu Leu Glu Leu Cys Tyr Arg Ser | |
| 1255 1260 1265 | |
| cct gga gaa gac cag ctg ttc tcg gag ttc tac gtt ggc cac ttg gga | 4014 |
| Pro Gly Glu Asp Gln Leu Phe Ser Glu Phe Tyr Val Gly His Leu Gly | |
| 1270 1275 1280 1285 | |
| tca ggg atc agg ctg caa gtg aaa gac aag aaa gat gag act ctg gtg | 4062 |
| Ser Gly Ile Arg Leu Gln Val Lys Asp Lys Lys Asp Glu Thr Leu Val | |
| 1290 1295 1300 | |

tgg gag gcc ttg gtg aaa cca gga gat ctc atg cct gca act act ctg 4110
 Trp Glu Ala Leu Val Lys Pro Gly Asp Leu Met Pro Ala Thr Thr Leu
 1305 1310 1315

atc cct cca gcc tgc ata gcc gta cct tca cct ctg gat gcc ccg cag 4158
 Ile Pro Pro Ala Cys Ile Ala Val Pro Ser Pro Leu Asp Ala Pro Gln
 1320 1325 1330

ttg ctg cac ttt gtg gac cag tat cga gag cag ctg ata gcc cga gtg 4206
 Leu Leu His Phe Val Asp Gln Tyr Arg Glu Gln Leu Ile Ala Arg Val
 1335 1340 1345

aca tcg gtg gag gtt gtc ttg gac aaa ctg cat gga cag gtg ctg agc 4254
 Thr Ser Val Glu Val Val Leu Asp Lys Leu His Gly Gln Val Leu Ser
 1350 1355 1360 1365

cag gag cag tac gag agg gtg ctg gct gag aac acg agg ccc agc cag 4302
 Gln Glu Gln Tyr Glu Arg Val Leu Ala Glu Asn Thr Arg Pro Ser Gln
 1370 1375 1380

atg cgg aag ctg ttc agc ttg agc cag tcc tgg gac cgg aag tgc aaa 4350
 Met Arg Lys Leu Phe Ser Leu Ser Gln Ser Trp Asp Arg Lys Cys Lys
 1385 1390 1395

gat gga ctc tac caa gcc ctg aag gag acc cat cct cac ctc att atg 4398
 Asp Gly Leu Tyr Gln Ala Leu Lys Glu Thr His Pro His Leu Ile Met
 1400 1405 1410

gaa ctc tgg gag aag ggc agc aaa aag gga ctc ctg cca ctc agc agc 4446
 Glu Leu Trp Glu Lys Gly Ser Lys Lys Gly Leu Leu Pro Leu Ser Ser
 1415 1420 1425

tga agtatgaaca ccagcccttg acccttgagt cctggctttg gctgaccctt 4499

ccttgggtct cagtttcttt ctctgcaaac aagttgccat ctggtttgcc ttccagcact 4559

aaagtaatgg aactttgatg atgcctttgc tgggcattat gtgtccatgc cagggatgcc 4619

acagggggcc ccagtccagg tggcctaaca gcattctcagg gaatgtccat ctggagctgg 4679

caagaccctt gcagacctca tagagcctca tctgggtggcc acagcagcca agcctagagc 4739

cctccggatc ccatccaggc gcaaagagga ataggaggga catggaacca ttgcctctg 4799

gctgtgtcac aggggtgagcc ccaaaattgg ggttcagcgt gggaggccac gtggattctt 4859

ggctttgtac aggaagatct acaagagcaa gccaacagag taaagtggaa ggaagtttat 4919

- tcagaaaata aaggagtatc actgctcttt tagaatttgt ctagcagact ttccagtttt 4979

taccagaaaa cccctataaa ttaaaaattt ttactttaa ttaagaatt aaaaaaatac 5039

aaaaaagaaa aaatgaaaat aaaggaataa gaagttaaaa aaaaaaaaaa aaaaaaaaaa 5099

a 5100

<210> 13

<211> 763

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 45

<223> unknown

<223>

<400> 13

ctttctcccc cttgggagtc ttctgaaaa tgatccataa tgccttgccg ttcattcccc 60

tcacctctgt ggtgttgctt taccaccgcg tccatcctga gaaagtcacc ttccacctct 120

acctgatccc aagtgactgc tccattcgga aggccataga tgatctagaa atgaaattcc 180

agtttgtgcg aatccacaag ccacccccgc tgaccccact ttatatgggc tgtcgttaca 240

ctgtgtctgg gtctggttca gggatgctgg aaatactccc caaggaactg gagctctgct 300

atcgaagccc tggagaagac cagctgttct cggagttcta cgttggccac ttgggatcag 360

ggatcaggct gcaagtgaag gacaagaaag atgagactct ggtgtgggag gccttggtga 420

aaccaggaga tctcatgcct gcaactactc tgatccctcc agcccgcata ggaaggaaca 480
ccagccagcc gtggaacctc aggtgcaaca gagacgccag gagatactag tgcccagcag 540
cctgcggcag taccaatgaa gccagagagg gcttggtgga tgacaaggag gcctgagtag 600
accgcaggtg ggtctgagaa atgggcttag gtgaggcagg tctttgaagg atttgttctt 660
aatcatatgc gagatgctca aaaggctgga tgcctgcttt tgtgggtgaa gagcaagaag 720
agaaaacagg ttgtacacat acagatgcag atggagagac aga 763

<210> 14
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 14
ggaatgggct ttcagaaccc 20

<210> 15
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 15
gagccgcaga gcagggaatg 20

<210> 16
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 16

- ctgttctgtg ttcctcagat

20

<210> 17

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 17

gggagtggta ggaaaagcca

20

<210> 18

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 18

ccgtctctta ttcagcattc

20

<210> 19

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 19

gcaggcagag aacagtgcctg

20

<210> 20

<211> 20

- - <212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 20

ctctgtcccg gagttaagag

20

<210> 21

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 21

aagctggaac tccttcagct

20

<210> 22

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 22

ggagggctag gtcccaggcc

20

<210> 23

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

— <223> Antisense Oligonucleotide

<400> 23

cccgccggca attcatggat

20

<210> 24

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 24

aaacccttct ctctgagccc

20

<210> 25

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 25

gcagagattt ctctccagcg

20

<210> 26

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 26

ccattggggtc ccaggagcct

20

<210> 27

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 27

ggttaaaatc ctcatttttc

20

<210> 28

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 28

gcagctgaag tagaagacat

20

<210> 29

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 29

ctgggccagc tctctgcagc

20

<210> 30
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 30
tgatcaggaa ggatgcctcg

20

<210> 31
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 31
acaggccatg tattccatat

20

<210> 32
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 32
gagtctcgta caagcagtgg

20

<210> 33
<211> 20
<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

— — <400> 33

ccacctgaac aggactacca

20

<210> 34

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 34

aagagaatct gccaataggc

20

<210> 35

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 35

tttctggtga ccttgaggac

20

<210> 36

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 36

ggtcttacaa agactcttca

20

<210> 37

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 37

gctgtctcag tctctggcaa

20

<210> 38

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 38

gctgaccagc tgcagtcgct

20

<210> 39

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 39

ctgggtccagc cccaggcgta

20

<210> 40
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 40
tcctgcctca tctcatcact

20

<210> 41
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 41
cctcagttcc tgcctcatct

20

<210> 42
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 42
ccagggccct cagttcctgc

20

<210> 43
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 43

acttggtttc cgtctgctga

20

<210> 44

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 44

ctctgccgct tgagtgagga

20

<210> 45

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 45

cccttgagag gcaggagaag

20

<210> 46

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 46

gacccgtggtt gggccagcgg

20

<210> 47

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 47

gtcacccgctt ctctcatcac

20

<210> 48

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 48

caaagtgagg gaggtgcaca

20

<210> 49

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 49

acatggcccc cttggagagc

20

<210> 50

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 50

ggctggcttc tccaggagca

20

<210> 51

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 51

gcggtggtaa agcaacacca

20

<210> 52

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 52

gctccagttc cttccgaatg

20

<210> 53

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 53

tcgatagcag agctccagtt

20

— <210> 54

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 54

accagagtct catctttctt

20

<210> 55

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 55

tctcctgggtt tcaccaaggc

20

<210> 56

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 56

atgagatctc ctggtttcac

20

<210> 57
<211> 20
<212> DNA
<213> Artificial Sequence

--<220>

<223> Antisense Oligonucleotide

<400> 57
gaagggtacgg ctatgcgggc

20

<210> 58
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 58
aacctccacc gatgtcactc

20

<210> 59
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 59
tgtccaagac aacctccacc

20

<210> 60
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 60

- -gtccatcttt gcacttcgg

20

<210> 61

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 61

agttccataa tgaggtgagg

20

<210> 62

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 62

ctgctgagtg gcaggagtcc

20

<210> 63

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 63

ttgatacttc agctgctgag

20

<210> 64

<211> 20

— —<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 64

aaagccagga ctcaagggtc

20

<210> 65

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 65

acttttagtgc tggaaggcaa

20

<210> 66

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 66

ctggcatgga cacataatgc

20

<210> 67

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

- - <223> Antisense Oligonucleotide

<400> 67

gctccagatg gacattccct

20

<210> 68

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 68

cttggctgct gtggccacca

20

<210> 69

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 69

aggcaaatgg ttccatgtcc

20

<210> 70

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 70

atacagcatg tagccttttt

20

<210> 71

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 71

cttcttctat tgcgcaatct

20

<210> 72

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 72

gccagccaac ctgtggaaga

20

<210> 73

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 73

gaacaattac tgcagtcgct

20

<210> 74
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 74
taccgtctgc tgaagatgag 20

<210> 75
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 75
tccaacttac cttcttgcta 20

<210> 76
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 76
ttagtgtcac cttccgaatg 20

<210> 77
<211> 20
<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

- - <400> 77

catctatggc cttccgaatg

20

<210> 78

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 78

gaatttcatt tctagatcat

20

<210> 79

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 79

gattcgaca aactggaatt

20

<210> 80

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 80

agtgtaacga cagcccatat

20

<210> 81

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 81

caaagctcca gttccttggg

20

<210> 82

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 82

gtctctgttg cacctgaggt

20

<210> 83

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 83

attggtactg ccgcaggctg

20

<210> 84
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 84
ctggcttcat tggctactgcc

20

<210> 85
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 85
catctcgcat atgattaaga

20

<210> 86
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 86
catctgtatg tgtacaacct

20

<210> 87
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 87

ccttttataaa gaaatattta

20

<210> 88

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 88

ctcggcagtc tctgcgcagc

20

<210> 89

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 89

ggtccgccgg tcctctcagc

20

<210> 90

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 90

ccagccatct tgttctgtgt

20

<210> 91

<211> 20

<212> DNA

— <213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 91

ggtgttcctt cctatgcggg

20